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VOLUME XXVIII A.

RAWALPINDI DISTRICT,

WITH MAPS.

1907.

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TABLE OF CONTENTS.

CHAPTER I.—DESCRIPTIVE.

SECTION A.—PHYSICAL ASPECTS.

CHAPTER I.—DESCRIPTIVE—continued.

SECTION A.—PHYSICAL ASPECTS—concluded.

CHAPTER I.—DESCRIPTIVE—continued.

SECTION C.—POPULATION—continued.

CHAPTER I.—DESCRIPTIVE—concluded.

SECTION C.—POPULATION—concluded.

CHAPTER II—ECONOMIC.

SECTION A.—AGRICULTURE.

CHAPTER II.—ECONOMIC—continued.

SECTION A.—AGRICULTURE—concluded.

SECTION B.—RENTS, WAGES AND PRICES.

CHAPTER II.—ECONOMIC—concluded.

SECTION B.—RENTS, WAGES AND PRICES—concluded.

CHAPTER III.—ADMINISTRATIVE.

SECTION A.—ADMINISTRATIVE DIVISIONS.

CHAPTER III.—ADMINISTRATIVE—continued.

SECTION C.—LAND REVENUE—concluded.

SECTION D.—MISCELLANEOUS REVENUE.

SECTION E.—LOCAL AND MUNICIPAL GOVERNMENT.

SECTION F.—PUBLIC WORKS.

SECTION G.—ARMY.

SECTION H.—POLICE AND JAILS.

SECTION I.—EDUCATION AND LITERACY.

CHAPTER III.—ADMINISTRATIVE—concluded.

Section I.—Education and Literacy—concluded.

Section J.—Medical.

CHAPTER IV.—PLACES OF INTEREST.

CHAPTER I.—DESCRIPTIVE.

Section A.—Physical Aspects.

CHAP. I. A.

Physical Aspects.

Name.

The district takes its name from that of the head-quarters, which means "the village of the Rawals." The present city occupies the site of an old village inhabited by Rawals, a vagabond tribe of oculists, diviners, necromancers and impostors, about whom a good deal of information is given in section 528 of the Report on the Census of the Punjab, 1881.

Area.

The greatest length of the district, from Dewal on the north to Kantrila on the south, is 68 miles, and the greatest breadth along a line running east and west, immediately north of the head-quarters station, is 48 miles. Differences in various places from these measurements are not great, the district being roughly rectangular in shape.

The total area is 2,010 square miles, according to the recent settlement measurements.

Boundaries.

The district is one of the five districts of the Ráwalpindi Division, and comprises the eastern half of the rough plain country which lies between the Jhelum and the Indus and underneath the hills of Hazara, along with a mountainous portion in the north-east corner.

The eastern boundary is the River Jhelum, across which lie Chibbal and Punch, portions of Kashmir territory. On the north the Abbottabad and Haripur Tahsils of the Hazara District, on the west the Attock and Fatehjang Tahsils of the Attock District, and on the south the Chakwal and Jhelum Tahsils of the Jhelum District bound the district, which lies between 32° 6′ and 34° 1′ north latitude and 72° 47′ and 73° 42′ east longitude.

General Description.

This tract is divided into four tahsils: Murree Tahsil, triangular in shape and mountainous in character, lies to the north-east. South of it, along the western bank of the Jhelum river, lies Kahuta Tahsil. Due east of Kahuta Tahsil is Ráwalpindi Tahsil, and below Kahuta and Ráwalpindi Tahsils stretches from west to east the comparatively narrow strip known as Gujar Khan Tahsil. All four tahsils take their names from the tahsil head-quarters, whose latitude, longitude and approximate height above sea-level are as follows:—

Town.	North latitude.	East longitude.	Feet above sea-level.
Ráwalpindi	33° 37′	73° 6′	1,707
Kahuta	33° 37′	73° 26′	2,000
Murree	33° 35′	73° 27′	7,517
Gujar Khan	33° 16′	73° 22′	1,700

CHAP. I, A.
Physical Aspects.
General Description.

The district head-quarters are at the town of Ráwalpindi, where there are a large civil station, the largest cantonment in the Punjab, the head-quarters of the Civil and Judicial Divisions, and an important station on the North-Western Railway. An Assistant Commissioner is stationed during the summer months at Murree in charge of the Murree sub-division, which comprises the Murree Tahsil.

Ráwalpindi District stands 17th in order of area, 20th in order of population, and 25th in order of cultivated area among the districts of the Province. It contains 2·067 per cent. of the total area, 2·253 per cent. of the cultivated area, and 2·751 per cent. of the population of the British territories of the Punjab.

General Configuration.

A rough description of the district according to its most prominent physical characteristics would divide it into three portions. The first or mountainous portion would consist of the Murree Tahsil and the northern portion of the Kahuta Tahsil, a country of high mountain ridges divided by deep, narrow valleys and here and there connected by short cross spurs.

The second portion would include almost the whole of the Ráwalpindi Tahsil, and would sweep round east through Kahuta and down the west bank of the Jhelum into Gujar Khan Tahsil, till it reached the northern border of Jhelum District. This tract is hilly and submontane. It includes the skirts of the Margalla range, all those sharp-toothed ridges of bare rock by which the Murree hills run far out into the plains to the south, the steep hills on the western bank of the Jhelum, and the wild and surprising country of pebbles or sandstone ridges, sandy plateaus, and pleasant plains which makes up much of Ráwalpindi Tahsil.

The third portion would be called the plain or Pothwar portion. It includes, the whole of the Gujar Khan Tahsil, except the small corner on the east traversed by the hills on the bank of the Jhelum, the south-east portion of the Ráwalpindi Tahsil and the south-west portion of the Kahuta Tahsil. Rough though this tract is and gashed by many torrents, it is more nearly level and can be more correctly described as a plain than any of the adjoining tracts within the district.

The Murree and Kahuta hills.

Such a rough classification would give, in the case of the first portion, a country homogeneous and distinct in nature from the rest of the district.

The Murree and Kahuta hills are the key to the mountain system of the whole district. They consist of a series of spurs, which in any just account must include the Margalla Range running out on the west through Ráwalpindi Tahsil and the line of hot sandstone hills on the Jhelum bank running south to Bagham in Gujar Khan Tahsil. These hills and those of Hazara are part of the outer Himalayan system, gradually falling in height from the peaks of Kashmir in the north down to the hillocks of Bagham in the south, and not altogether unrecognizable in the low hills and pebble ridges of Kahuta and Ráwalpindi Tahsils.

CHAP. I, A.
Physical Aspects.

The Margalla Range.

The Margalla Range which, so far as it lies within the district, is a continuation of a spur running through Hazara District north of the Murree ridges, emerges into the district about the junction of the Murree, Haripur and Ráwalpindi Tahsil boundaries, and runs in a south-westerly direction across the north of the Ráwalpindi Tahsil. For much of its course through this tahsil it maintains a height of over 5,200 feet, and derives from the steepness of its sides and the suddenness with which it starts up from the level, fertile plain below, its some what impressive appearance. As it approaches the Attock border the range begins to sink down. About 15 miles north-west of Ráwalpindi it is crossed by the Margalla Pass, which carries the Grand Trunk Road, and is also marked by a conspicuous monument to General John Nicholson. West of the pass the ridge rises again, continues its course south-west with gradually diminishing altitude and is lost in the plain on the Attock border only a few miles short of the Kherimar and Kala Chitta hills of the Attock District.

The Murree and Kahuta mountains are capable of description on a regular and simple plan. They consist principally of five main spurs, more or less parallel to each other, running in general very sharply down from their highest points north-eastwards to the Jhelum river and more gradually south-westwards towards the plains of Ráwalpindi Tahsil. The five chief spurs are known generally as the Murree, Charihan, Paphundi or Patriata, Narar or Kotli spur, and the Utrina spurs.

The Murree Spur.

Of these the highest and most westerly is the Murree spur, which faces the Hazara District across a deep ravine. It is crowned by the Murree Civil Station, of which the highest point is 7,467 feet above the sea, the highest point in the district. North of Murree this ridge loses its rocky appearance, and gradually sinking as the Kuner torrent approaches the Jhelum, disappears on the river-bank at Kohala in Hazara District. South of Murree its descent is more gradual, and it is still a high and imposing ridge ten miles further south. At Salgraon it is cut through by the Kurang torrent, and though it raises its head again in the Karlot Salgraon ridge and continues its southern course, it is soon lost in the tangled foot hills of the Margalla Range on the border of Ráwalpindi Tahsil.

The Charihan Spur.

Immediately east of the Murree spur, and a few hundred feet lower, is the Charihan spur. The highest point is Lunhatal, opposite Murree Civil Station, north of which the ridge quickly joins the Murree spur. To the south this spur runs almost due south with height little diminished until it is cut through seven or eight miles lower down by the Soan torrent, South of this stream it rises again in the Chawa hill, and receiving the Kachut-Anguri spur from the Murree Range on the west continues south by Khatar. Entering Ráwalpindi Tahsil it runs for out into

CHAP. I, A. Physical Aspects.

the plains in a long, low strip which finally degenerates into lines of sharp rock starting up suddenly from the surrounding level country.

The Patriata Spur.

The most beautiful of all these ridges, and the most important, is the Patriata spur, which rises to a height of 7,212 feet opposite the Murree Station and intersects this mountainous tract. Rising quickly from the Jhelum bank and soon attaining a great height it runs south-west with lofty and unbroken crest for sixteen or seventeen miles. Cut through by the Soan stream it rises again in the Khairatian hill, and runs out into the plains in the long, narrow ridge which carries Thamair Rakh.

The Kotli or Narar Spur.

East of the Patriata spur is the Kotli spur, running above the Jhelum river, into which it drops by a steep descent. Unlike the other ridge it rises to its highest point in the south, culminating in Kahuta Tahsil in the grand plateau of the Narar mountain, 6,090 feet high, which with its flat top and scarped white sandstone sides dominates the plains in the south and drops in precipitous cliffs into the Jhelum river below. The north, or the mountain part, of the Kahuta Tahsil centres round the Narar mountain and is formed of spurs and ridges surrounding the great hill. To the west this ridge descends more gradually until it strikes the Soan river, which cuts through its western end, and forms a very wild and picturesque gorge. At the southern end of this gorge is situated the renowned old Gakhar fort of Pharwala, which was taken by Baber, and is still the seat of a very celebrated and very much decayed family of Admal Gakhars. Across the Soan the ridge runs out south-west into the Ráwalpindi plain in the bare forbidding rocky ridges of Kirpa and Bhambatrar which finally disappear in the plains only a few miles short of the Khairi Murat Range.

The Utrina Ridge.

The fifth ridge, commonly called the Utrina Ridge, is much shorter and lower than the others. Nowhere does its height exceed 3,800 feet. Starting from Kahuta town it runs east and gradually increases in height till it terminates on the Jhelum river-bank. It is the boundary between the mountainous and the hilly portions of Kahuta Tahsil.

The Jhelum bank Ridge.

South of the Utrina ridge there runs along the bank of the Jhelum a ridge of rough sandstone hills nowhere 3,000 feet higher than sea level and gradually diminishing in height until it loses itself in the low hillocks south of Bagham.

These hills and the valleys between them are often extremely beautiful. The higher spurs are covered with a very varied growth. Only a few *deodars* are to be found in Murree, and these were specially planted and tended, but there are many very handsome trees of the silver fir-species, the ilex oak, the hill oak, the blue-pine, chestnuts, wild-cherry, some fine ash trees, maples, &c., all uniting to form very beautiful forests on the

The Jhelum bank Ridge.

Murree and Paphundi spurs. The lower hills are covered in many places with the green-pine and the hill oak. Lower down again we find *kangar*, *khair* and *phaláh* acacias, olives, and lowest of all a luxuriant growth of *sanatha* (bog-myrtle) and *garanda* (*prinsepia utilis*) and other trees and bushes.

The Paphundi hill especially is beautifully wooded, and the scenery in the Murree and Kahuta hills is often very fine indeed, comprising, as it frequently does, a foreground of lovely woodland scenery with a background of lofty snow-clad peaks. Many of the lower valleys, too, are extremely picturesque, especially the Narai Valley, between the Narar and Paphundi spurs. The hillsides on each side of the Narai are covered low down with *sanatha*, the bright-green of which contrasts strongly with the dark-green of the pines above, and a tributary of the Soan runs down the valley in which are many picturesque pools. The scenery, too, near the banks of the Jhelum river also is often fine, especially below the beetling cliffs of the Narar mountain. In many cases small hamlets and little patches of cultivation are found high up on hillsides and on mountain tops, most picturesquely situated, and these add much to the beauty of the landscape.

The submontane tract.

Lying immediately below the mountainous portion of the district, and stretching in a great horse-shoe from west to east, so as to include the western and northern portions of the Ráwalpindi Tahsil and the central portion of the Kahuta Tahsil, is what has been called the hilly and submontane portion of the district. In such a huge tract homogeneity cannot be expected, and it need occasion no surprise to find stretches of the most fertile plain country in a tract described as "broken and hilly throughout its whole area." The component parts of this tract will now be noticed in order.

The Haro villages.

In the extreme north-west of this tract, and north of the Margalla Ridge, a narrow wedge of level, fertile plain runs up between the Attock Tahsil on the west and the Haripur Tahsil on the east, extending up to and crossing the Haro river. Geographically this strip of land belongs to the Attock Tahsil, but it is traversed by the Grand Trunk Road and the North-Western Railway, and communications with Ráwalpindi are so good that administrative facilities have been given precedence over geographical difficulties, and in spite of occasional proposals for the transfer of these villages to Attock, they still remain attached to the Ráwalpindi Tahsil.

The Kharora.

South of the Margalla Range, and stretching from the west border of the district to close to the Ráwalpindi Cantonment is the dry, gravelly plateau known as the Kharora. Underlying rock everywhere crops to the surface and shows in the banks of all ravines. A very prominent feature of the landscape is a high ridge of rock, which runs across the circle for many miles from north to south, finally ending near Ráwalpindi Cantonment.

CHAP. I, A. Physical Aspects. The Kharora.

The ridge consists of a ledge of sandstone tilted perpendicularly from the ground and standing up in a rampart of solid rock some 40 feet high and only a few feet thick. This curious geological phenomenon is known locally as the Chir Par, or the split hill. It is an unusual sight, and legends have clustered about it.

The remainder of this tract in the Ráwalpindi Tahsil along with the western and adjacent portions of the Kahuta Tahsil as far east as Kahuta town is divided in common parlance into the Kachha and the Kandhi. The Kachha is the tract along and among the foot hills of Murree. This is true submontane characterized by copious rainfall, abundant springs and some *abi* cultivation.

The Kandhi.

The Kandhi extends as far east as Kahuta and on the west is usually considered to extend as far as Ráwalpindi. On the east the tract includes the country lying among the low soft sandstone hills, which run out from the main Murree Range near the Kahuta border. On the west it includes the rich plains near Ráwalpindi, which are the most fertile spots in the whole district, but the general characteristic of the tract is the low hills and outcrops of rock from the Murree hills on the north, and this is reflected in the name Kandhi or bank, referring to the foot hills of the Himalayas. Throughout this tract there are level and sometimes very fertile valleys interspersed with spurs of sandstone rock and cut up with pebbly ridges. Between Ráwalpindi and the hills is a comparatively level plain stretching from the Murree Road to the Grand Trunk Road. This is the most fertile tract in the district, and Ráwalpindi itself is the most fertile spot in it. East of this plain ridges of sandstone run down south from the Murree and Kahuta hills and split up the country into valleys and plateaux of sandy soil. South of Ráwalpindi ravines and gorges scar the country, and present the wildest and most desolate aspect.

The Kahru Ilaka.

The only portion of the submontane tract left to be described is that known as the Kahru Ilaka. This lies wholly in the Kahuta Tahsil, of which it forms the eastern and south-eastern portion. The name is derived from the Karhwal or Garhwal section of the Janjua tribe, which holds most of the villages. The eastern portion of this tract is traversed by the Jhelum river-bank line of hills already described, and is thus in nature hilly. The western portion is composed of pebble ridges rising occasionally into prominent hills. To the south the characteristics are low sandstone hills or light sandy soil, and the country resembles the adjoining tract of Gujar Khan Tahsil.

On the whole this is the most rugged portion of the submontane tract. Roughly it may be said that as far as Ráwalpindi Tahsil is concerned the rough submontane tract is bounded on the south by the Soan river, a hill torrent which descending from the Murree hills divides the tahsil in two from north-east to south-west and is the most notable physical feature of the tahsil.

CHAP I, A.
Physical Aspects.

The country in its valley is known locally as the Soan Ilaka and is so characteristic and so unlike the plains country next to be described that it must be separately noticed.

The Soan Ilaka.

The Soan valley is a narrow strip of pebbly alluvial soil lying between the gloomy and forbidding hills which shut in the river on either hand. South of the Soan the country is of rather different appearance, and resembles more the plain of Gujar Khan. As in Gujar Khan ravines traverse and re-traverse the country in all directions, pebble ridges are less frequent than north of the Soan, but friable sandstone rocks crop up to the surface in all directions. Along the Soan and the Ling river, and on the extreme south, near the Wadala torrent, the land is scoured into innumerable ravines and deep, earthy depressions, and communications are extremely bad. On either side of the railway, near Mankiala Station, is the fertile Nalla Valley, which forms a pleasant contrast to the rugged gorges which surround it. Except in the Ráwalpindi plain, in the Nalla Valley, and in the tract north of the Margalla Range the whole country is wild and forbidding in appearance, and difficult in character.

The plains.

The remaining portion of the district is an integral part of the great Pothwar plain, which, stretching south from the Soan in Ráwalpindi Tahsil, includes nearly the whole of the Gujar Khan Tahsil, and the southern part of the Kahuta Tahsil, and runs through the Jhelum Tahsil down to the Jhelum river. The Soan is the northern boundary of the Pothwár just as the Jhelum is the southern boundary. Strictly speaking the few villages between the Ling and Soan streams belong ethnologically to the Kandhi, but geographically they belong to the Pothwar. This southern portion of the district is more nearly level and can be described with more correctness as a plain than any other portion of the district. With the exception of the spur of sandstone hills running south from the low hills in Kahuta Tahsil at a height of never more than 450 feet above the town of Gujar Khan and stretching along the bank of the Jhelum river till it joins the Labri Range in the Jhelum District, the whole of Gujar Khan Tahsil is included in it. It contains no hills, but there is very little level land. The whole country is scoured with rain water and intersected by ravines. These have no apparent order or method, but wind and intersect over the tahsil and divide the whole surface into a network. Every village is divided on one side or on all sides from its neighbours by ravines. Village boundaries are generally marked by configurations of the ground. The ravines are of various sizes and of various depths. Sometimes they are scoured out of the sandstone rock underlying the soil, sometimes when the soil deepens they are fissures in the loamy surface ; generally they have no name, or the name is different in different places. The larger ravines which receive surface drainage and carry water after rain are known as kas or kassi, according as they are large or small. The smaller ravines have no

CHAP. I, A.
Physical Aspects.

torrent bed, and are scoured out by surface drainage alone. These are known as "bhurá" or dry ravines.

Drainage.

The drainage system of the district is simple. All streams in the district find their way either to the Indus on the west or to the Jhelum on the east. The watershed, starting from the steep cliffs on the east of the Narar plateau runs in a straight line south-west through Kahuta Tahsil, passing three or four miles east of Kahuta, to Mandra and is then marked by the highroad from Mandra to Chakwal. All the country east of this line together with the portion of the Murree Tahsil north of Murree Station drains into the Jhelum. West of this line the slope is towards the Indus, which receives the drainage of this tract chiefly through the Soan.

The Jhelum drainage system.

The Kanshi torrent.

The chief stream of the Jhelum drainage system is the Kanshi. Rising in the Kahru Ilaka of the Kahuta Tahsil near Mator it flows south, receiving, chiefly from the west, several small tributaries which drain the south-west portion of the Kahuta Tahsil. Near the town of Kallar it enters the Gujar Khan Tahsil, runs under Gujar Khan Town, and continues south parallel to the Grand Trunk Road. Near the Jhelum border the stream turns east and runs down through a deep rocky bed to join the Jhelum. For the last 20 miles of its course it is a deep and rushing mountain stream, with rocky banks and numerous tributaries. In the upper part of its course the bed is broad, and generally in Kahuta Tahsil stony, and in Gujar Khan sandy. There is always running water in the torrent bed, but sometimes it disappears and runs under ground, appearing again as a running stream a few miles further on. Its most important tributaries joining it within the district are the Sareih and the Guliana. The Sareih rises in the pebbly ridge south of Nara in the Kahuta Tahsil, flows south through the narrow valley between the Dodili-Mator and Doberan ridges, runs through an opener country by Choa Khalsa, where it receives the drainage of a wider tract, and enters Gujar Khan Tahsil at Bewal. Collecting the drainage of the extreme east of Gujar Khan Tahsil it joins the Kanshi in a wild gorge in the hills.

The Guliana kas rises near Sukho, winds eastward past Guliana village, and joins the Kanshi near the Jhelum border. It runs through a sandy channel only and has less of the mountainous character of the two above-named torrents. The Thaliari kas rises near Jatli on the Chakwal-Mandra Road, and runs due south into Chakwal Tahsil. It is of less importance than the others, but it runs through a Gujar country, and Gujar villages separate on both sides cluster on its banks.

All these streams, and a few other petty streams also, have a perennial water-channel fed by springs, and all become roaring torrents after rain. Along their banks are dotted village sites, and most of the well cultivation of the tract is in the beds of the torrents. Wells are dotted in patches below the high banks of the

CHAP. I, A.

Physical Aspects.

The Jhelum drainage system.

The Kanshi torrent.

streams, where the channel widens, and a patch of good loam and the proximity of water offer a chance of successful irrigation. Nearly all the wells are situated in or near ravines and depressions, and the water-bearing strata lie close along the larger streams. Except as feeding the wells, the torrents are of no use for irrigation. Their channels are scoured far below the surrounding country, and water cannot spill out on either side. In the wider beds, especially in the bed of the "Kanshi" there are scattered patches of cultivation, which are flooded in the rains, and which have been classified as sailab. All the land in the tract recorded as sailab is of this character, but the land is poor; the flood-waters carry more sand than silt, and the best lands are those which receive moisture by percolation from the adjoining stream without being injured by actual flooding.

The Jhelum mountain torrents.

The remainder of the Jhelum drainage system consists of short rapid mountain torrents, which in Murree and Kahuta Tahsils find their way to the Jhelum by narrow glens through the high cliffs which everywhere shut in the river. These streams are usually known from the villages which they pass, the name varying from part to part of the course. Some are known simply as khad or kas. Three in the Murree Tahsil, taking their rise in the high ridge which runs across the tahsil and connects the highest points of the three principal ranges, flow north.

Of these the Kuner forms the boundary of the Rawalpindi and Hazara Districts. It rises in the horse-shoe of hills behind Murree Civil Station in five small streams, which join below Malot Dhundan village, and running due north leaves the district at Dewal and joins the Jhelum near Kohala. The Birgraon-Potha and the Dhirkot kases drain valleys between the Murree and Patriata and the Patriata Kotli ridges respectively.

The remaining torrents run due east. North of the Utrina ridge they all have very short courses, being shut in between the river and the Kotli-Narar ridge, which runs very close to the Jhelum bank.

These mountain torrents, with the exception of the Kuner, quickly run dry. Their catchment areas are the precipitous and sometimes bare sides of the valleys through which they run. Every drop of the slightest rainfall quickly finds its way into the bed below and sudden and violent spates are frequent. South of the Utrina ridge the streams are somewhat larger though they are never more than mountain torrents. The Dewangarh torrent runs east and carries the drainage of the southern slopes of the Utrina ridge to the Jhelum at Owen ferry. The Salgraon stream and the Har torrent cut through the river-bank hills near Ser. The Khad nullah running south from Nala Musalman for ten miles at last finds its way through the ridge at Dangalli, and, gathering a few small streams from about Choa Khalsa joins the river at Dangalli ferry.

CHAP. I, A.
Physical Aspects.
The Jhelum.

The Jhelum river rises in Kashmir at Vernág, in the east of the Happy Valley, and flows through the valley, which it leaves at Báràmúla. Thence its course is that of a mountain torrent between lofty mountains and precipitous rocks, as it cuts through the northern extremity of the Pir Panjál range.

From a point a few miles south of Kohála it becomes the eastern boundary of the district and continues its course as a mountain torrent as far as Dángalli, after which it becomes smoother and broader. It is not navigable above this point, but there are several ferries across it between Kohála, where it is crossed by a fine bridge, and the south-eastern extremity of the district. Much timber is floated down this river from Kashmir territory, chiefly from the Kishenganga branch which joins the Jhelum some 20 miles above Kohála, at which junction (Domel) there was a very fine dâk-bungalow on the road to Kashmir. Excellent fishing is to be got here especially in the end of August and beginning of September. Good fishing is also to be had at several points between Kohála and Bagbám, notably at the mouth of the "Marl," a stream which joins the Jhelum from the left bank in Punch territory, opposite the village of Tánda. The old suspension bridge at Kohála and the dâk-bungalow at Domel where both washed away in the extraordinary floods of 1893.

A mule road, which is always known locally as "Hall's Road" from the name of the Deputy Commissioner under whose auspices its construction was attempted, runs from Dángalli to Kohála along the right bank of the river, but this was not a success, and is now entirely out of repair and impassable in many places. The scenery along this road is extremely beautiful, but the path is of no practical utility at present, nor on account of the extremely rough and difficult country to be traversed is it likely that it ever could be made so without an enormous expenditure. The river throughout has steep and rocky banks and is nowhere of any use for irrigation purposes.

Indus drainage system.

The Indus drainage system is practically the Soan and its many tributaries. At the north-west corner of the Ráwalpindi Tahsil the small wedge of fertile country north of the Margalla range, and surrounding Serai Kala, drains into the Haro, which, rising in the Hazara hills near Khanpur and entering the district near the village of Bhallar-top, runs for about seven or eight miles in a north-westerly direction across a small portion of the Ráwalpindi Tahsil and makes its way through Attock District to the Indus. In the south-east corner of the Ráwalpindi Tahsil a few villages drain into the Jhelum by tributaries of the Kanshi. A few small streams in Murree Tahsil find their way into the Jhelum. Otherwise the whole of Ráwalpindi and Murree Tahsil and the western portion of the Kahuta Tahsil form the catchment basin of the Soan and its tributaries.

CHAP. I, A.

Physical Aspects.

The Soan.

Rising just below Murree, in the village of Musiari, the Soân flows due south between the Murree and Patriata ridges, then worms its way by a tortuous course through broken hill country and by picturesque valleys till it emerges on the plains near the village of Cherah. It then cuts through the Narar spur, here 2,500 feet above the sea and 800 feet above the river level, making a very striking wild and rocky gorge one mile in length, at the eastern end of which is still to be seen the picturesque old Gakkhar fort of Pharwala, and through which runs a very rough district path. This gorge divides the Kahuta from the Ráwalpindi Tahsil. At Pharwala the Soan finally quits the hills and, flowing in a south-west direction, divides the Ráwalpindi Tahsil through the middle and after a course of about 35 or 40 miles enters the Fatehjang Tahsil of Attock District at the village of Chauntra.

Above Pharwala in the hilly part of its course it is simply a mountain torrent with rough bed of sandstone clay and boulders. Below Pharwala it spreads out over a wide bed, like most Indian rivers, only a small portion of which it fills when not in flood. Here it is a rocky, turbulent and treacherous stream, with a bed of sand and boulders and banks always wild and steep. All along its banks rough sandstone cliffs, ridges of pebbles, and difficult ravines stretch back for miles on either side. Generally the stream is fordable everywhere, but when the floods are out, communications are cut off for days together while rocky banks and treacherous quicksands make the passage of the stream always troublesome. The Grand Trunk Road crosses the river on a fine bridge four miles south of Ráwalpindi, and during the rains all traffic has to pass over this bridge.

Below the bridge no drainage finds its way into the stream until the Fatehjang Tahsil of Attock is reached, but the whole of the surrounding country is drained by the two of its tributaries. On the west the Sil, rising near Ráwalpindi and receiving all the drainage from the country east of the Golra-Fatehjang Railway, runs in a narrow bed between precipitous banks till the Fatehjang border is reached. It reaches the Soan near the borders of Pindigheb Tahsil of Attock. The channel always carries some water, and heavy floods pass down after rain, but the stream is small and unimportant. On the east the Wadala rises near Rewat in the Ráwalpindi Tahsil, and, after dividing the Ráwalpindi Tahsil from Gujar Khan and the Gujar Khan Tahsil from Fatehjang bends westward, and entering Fatehjang joins the Soan at the extreme south-west corner of that Tahsil. Separated from the Soan by high dry uplands the Wadala in this district is a mass of forbidding ravines. It carries little water at any time while the drifting sand of its bed is always spreading and enveloping the fields along its banks.

CHAP. I, A.
Physical Aspects.
The Soan.

Of the tributaries which feed the Soan in this district the only one of any importance on the left bank is the Ling. This stream rises at the foot of the Narar platêau and having collected the drainage of almost the whole of the mountainous portion of Kahuta flows close by Kahuta town, forces its way through precipitous gorges into Ráwalpindi Tahsil, and joins the Soan at Sihala near the Grand Trunk Road.

On the right bank the chief tributaries are the Kurang and the Leh. The former rises in the Murree range, debouches on the plains below Chattar, and, collecting streams on the west from the Margalla range and on the east from the foot-hills of Murree Tahsil, joins the Soan near the Grand Trunk Road. The latter rises in the Margalla range, drains the country north of Ráwalpindi, and, passing round the city and cantonment, joins the Soan close to its junction with the Kurang.

Lakes.

There are no lakes in the district. The only marsh of any importance, which is always known as the Khánna Jhíl, and which really consists of two marshes, one 35·49 acres in extent, close to the Khanna Dâk village, and the other close to the Sohan village, of 8·74 acres, is situated about 4 miles from the Ráwalpindi Cantonment. These two marshes are formed by the Kurang stream. Some rice is cultivated and there is a small area of excellent sugarcane in the depression surrounding it. It is also excellent snipe ground, and being close to Ráwalpindi is very much shot over.

In general the water-supply of the district is satisfactory. In Murree and Kahuta there is never any scarcity. In Gujar Khan and Ráwalpindi the larger and a few of the petty springs have a permanent water-channel fed by water from the hills or reinforced by springs. There is not in this district that liability to failure of the water-supplies which exists in the adjoining district of Jhelum and in parts of Attock District.

Geology.

Our knowledge of Indian geology is as yet so general in its nature, and so little has been done in the Punjab in the way of detailed geological investigation, that it is impossible to discuss the local geology of separate districts. Some information regarding the local geology of the district will be found in a paper on the Ráwalpindi Hills in Vol. V. of the "Records of the Geological Survey" and on the Murree Hills in the "Records of the Geological Survey" for 1872.

Reference should be made also to the pamphlet on the Geology of the Punjab, published by Mr. Medlicott, Superintendent of the Geological Survey of India.

Geologically the high hills of Murree and Kahuta Tahsils are composed of tertiary sandstones, limestone and alluvial deposits. These sandstones apparently belong to the Sirmúr and Siwalik series of the sub-Himalayan system.

CHAP. I. A.
Physical Aspects.
Geology.

In colour they vary from light grey to red, and in the higher portions of these two tahsils are harder and less friable than in lower tracts. Some of the strata yield excellent building material or are quarried by Government for road metal. Others on exposure decompose and crumble away. The Narar hill is wholly composed of a hard white sandstone, which, exposed on the north in precipitous cliffs, gives an appearance of scarped grandeur unique among the hills of the district. Thin flakes of white calcareous matter and hollow nodules filled with clay are generally seen in these rocks, while in the beds of streams concretions of porous limestone, known locally by the name of "Kaniatt" are commonly met with. Small beds of fine conglomerates are also to be found here and there. Mixed or alternating with the sandstone occur extensive beds of red or bluish clay or shales, and these, with the more or less decomposed sandstone, give its character to the soil of these tahsils.

Limestone (jurassic and triassic) is the characteristic of the Margalla range, and this is the main cause of the fertility of the villages which lie beneath it. It is found also, but in limited quantities, in Murree Tahsil. Beds of it lie along the western boundary of the tahsil next the Hazara District and again below the depôt barracks in Murree. It is usually grey or bluish white in colour, and often of intense hardness, yielding in several localities building lime of excellent quality. The alluvial deposits occur chiefly in the lower portion of the Kahuta Tahsil in the vicinity of the Jhelum, from which, however, they are separated by a belt of sandstone hill. These deposits usually take the form of small plateaus or gently rounded slopes and ridges with shallow ravines abutting on a broad stony river-bed or khud. They are often at a height of several hundred feet above the existing water-courses, and are composed of rounded boulders, generally of small size, composed of sandstone, granite or quartzite, or are made up of gravel and sand mixed or alternating with clayey deposits. They have very little cohesion, and where precipitous, are liable to landslips. They have been described as alluvial deposits, but it is equally possible that they have a glacial origin. In the plains portions of the district sandstone is almost everywhere the rock underlying the soil. In Ráwalpindi Tahsil limestone crops out everywhere along the low hills, and in the plains kankar deposits are common. The chief characteristic of the Kharora Circle of Ráwalpindi and the characteristic from which it derives its name is the "kankar" or nodular limestone which fills the soil. "Rora" means any gravel, and in particular limestone gravel.

The pebble ridges, described as alluvial deposits, in the Kahuta hills are the most remarkable structural feature of the Kahuta and Ráwalpindi Tahsils. In both tahsils they crop up to the surface in all directions.

CHAP. I, A.
Physical Aspects.

The Soan runs entirely between pebble hills, and the Soan alluvial soil is full of pebbles; most of the forts round Ráwalpindi Cantonment are built on pebble ridges; scattered all over the Ráwalpindi Tahsil the pebble beds rise to the surface here and there in desolate barren mounds. Large isolated boulders in many places seem to point to a glacial epoch in the Pothwar plain.

Botany.

The district flora is of much importance and of great variety, differing in character at different elevations.

Gujar Khan Tahsil and the real Pothwar portions of the district are not well wooded. Along the field banks, and in the cultivated land trees are rare, but in the ravines small stunted trees are common. The district roads are all well wooded. The common trees are Kikar, Phuláhi, Ber and Shisham. Grasses are poor, and there is little natural grazing. "Dab" is the commonest grass, but "Dubh" or "Kabal" is not uncommon. The soil is clean, and grsses do not spring up freely in cultivated lands, while on uncultivated lands nothing but the coarsest grasses can grow. In the Kharora and Kandhi tracts of Ráwalpindi and Kahuta Tahsils the predominant tree is the Phuláhi. The Kikar appears in the south, but disappears further north, and the mulbery takes its place. Here also the wild olive, known as "Kao" grows freely. The Ber and Drek are fairly common everywhere.

Of brushwoods, bhekar (*Adhatoda vasica*) and beri (*Zízyphus nummularia*) mark the more southerly parts of the tract, while near and under the hills pitaki (*Celestrus spinosus*), garanda (*Carissa diffusa*) and highest of all, sanatha (*Dodonæa viscosa*) indicate a submontane climate. The shisham is everywhere, never abundant, but always prized. Most of the trees are owned by Government, but there are many in the fields and growing sheltered in ravines. As with trees, so with grasses, the vegetation changes from plain to submontane as we approach the hills. Khabbal, the dubh grass of Hindustan, is the principal grass of the plains, as it is the best of all grasses. The hill grass, known as "chitta," is found everywhere in the plains and is abundant in the hills. The typical and most common hill grass is a many awned grass locally called lumber, and this, though an inferior grass, is the principal fodder of the mounted troops in Ráwalpindi Cantonment.

The following account of trees and vegetation in the higher tracts is taken from the recent Assessment Report of the Murree and Kahuta Tahsils:—

"The whole of the Murree Tahsil and much of the Kahuta "Tahsil is covered with valuable timber, while more "than 100 Government forests have been formed and "are worked in the two tahsils. It would be impossible "within the brief limits of an Assessment Report to "give an adequate description of the trees and under-

CHAP. I, A.
Physical Aspects.
Botany.

"growth which cover so large a part of the tahsil under "report. The vegetation, however, bears a close relation "to the soil and to cropping, and some knowledge of "the flora of the district is essential to a proper "description of the soils and to an adequate under-"standing of the ever varying circumstances of the "cropping and agriculture of the tract. The methods of "agriculture always vary with the altitude and with the "forest growth, and a change in the forest growth is a "surer indication of a change in circumstances than any "other available to an assessing officer. It may be said "broadly that there are four classes of forest growth "corresponding to different altitudes and to different "agriculture. The different classes of growth are re-"presented by different main trees, but the undergrowth "is more uniform and more characteristic than the trees. "In the lowest class, covering nearly the whole of the "Kallar Kahuta Circle and the south part of the Kahru "Circle the phuláhi (*Acaria modesta*) is the principal "tree and bhekar (*Adhatoda vasica*) is the principal "shrub. Towards the north of the Kallar Kahuta Circle "the mulberry contests the pride of place with the "phulahi, but the phulahi is always the most abundant. "The kikar (*Acacia arabica*) is almost absent and, "indeed, the country is too cold for the kikar. In the "north round Kahuta mango trees are common and are "of some profit to the people. In the Kahru Circle, "generally, bhekar and sanatha (*Dodonoea viscosa*) or "higher up garanda (*Carissa diffiusa*) and sanatha form "the undergrowth and the trees are still phulahi. In "the higher villages bhekar entirely disappears and "the phulahi gives place to the chir pine (*Pinus "longifolia*), with the rhin oak (*Quercus incana*) "and other broad-leaved trees. Higher up again, "and now we are getting among the high hills, the "chir pine pushes out all other trees and the sambal or "barberry (*Berberis aristata*) becomes the principal "undergrowth. Still higher up and only to be found "on the Patriata and Murree heights the chir pine gives "place to the biar (Blue pine or *Pinus excelsa*) and "wild indigo and veburnum form a thick undergrowth. "Chestnuts, poplars and maples are now common. "Round Murree itself the forest changes again, the "biar gives place to the silver fir, while bird cherry, "yew, barangi (*Quercus dilatata*) and many other large "trees form the finest forest in the district. Except as "a small tree cultivated in gardens the deodar does not "appear and, in spite of many efforts, will not grow. "For assessment purposes the bhekar, sanatha, sambal

CHAP. I, A.
Physical Aspects.
Botany.

"and veburnum are the important indications of "changing conditions. Roughly speaking, wheat and "bajra are the important crops where the bhekar grow, "higher up sanatha marks the supremacy of maize, but "wheat, and less so bajra are still important. Where "the sambal grows bajra disappears and wheat is of "little importance. Higher up again maize with "potatoes and fruit trees indicate that rabi crops cannot "be grown at all. In the long scattered villages of "the hills three classes of vegetation may be found in "any one village, and among the hills and valleys, "villages of different kinds lie side by side, and it "becomes important to observe the different conditions "of different parts of the same village or of distinct, "but adjoining, villages. Generally speaking, snow falls "every year in the sambal level and above it, falls only "occasionally and never lies long in the sanatha level, "and does not fall at all where the bhekar grows."

"Very little is known about the grasses of the hills, and they "seem never to have been studied. The khabbal (dub) "of the plains is the best grass of all and always marks "good land. Pahari grass, known also as chitta, is the "best hill grass. It grows also in the plains and pro-"vides excellent fodder. Lumbar covers the lower "parts of the mountain ranges, but is a poor fodder "grass. The grass of the high hills is generally inferior "and in the highest hills ferns and undergrowth kill "all the grass. Sarála is the most common grass of "this part, but it is a spiked grass and is bad food for "horses, and not good for cattle."

Deodar nowhere in the district grows spontaneously, and can be reared only with great difficulty. There is no reason to believe that the species ever existed naturally at all in the Murree hills, and no trace of it can now be found in the forests. It grows in the adjoining district of Hazara on Mt. Mochpuri, which is situated further back in the mountains and has a higher elevation than any of the Murree hills. A few small trees are to be seen in the compound of St. Deny's School in Murree and round the Divisional forest office at Goragalli, and efforts are being made to raise it in seed beds on the top of Patriata ridge, but the success of the experiment is not yet assured. It is probable that the species is really unsuited to the local climate and soil.

The following list of the most important trees in the district is taken from the last Gazetteer. It was supplied by the Forest Department.

List of Forest trees in the Ráwalpindi District.

Botanical.	Local.	English.	REMARKS.
A.			
Albizzia Lebbek	Sirín	Sirris	Scarce.
" Sp.	Gharia.		
Acacia Catechu	Khair	...	Fairly common.
" Modesta	Phuláa	...	Common.
" Eburnea	Dudea Bambúli ...	...	Shrub.
Æsculus Indica	Bankhár	Horse chestnut ...	Fairly common.
Adhatoda Vasica	Bahekar	...	Common.
Acer Cultratum	Trikan	Maple	Not common.
Abies Pindraw	Palúddar	Himalayan silver fir	Only about Murree.
Andromeda ovalifolia ...	Rattankát.		
B.			
Bombax Malabaricum ...	Simmal	Cotton tree ...	Grows to great size, one at Bobri, near Chattar, over 22 feet at 6 feet from ground.
Butea frondosa	Chichra	...	Scarce.
Berberis Aristata	Sumbálu	...	Common.
Buxus Sempervirens ...	Shamshád Chikri	Box	Scarce.
Bauhinia Variegata ...	Koliár	...	Leaves for fodder.
Buddleia Asiatica	Bhatti.		
C.			
Cassia Fistula	Amalts	...	Scarce.
Casearia tomentosa ...	Chilla.		
Cedrela Serrata	Dráwa.		
Celastrus Spinosus ...	Patáki Kander ...	...	For walking sticks.
Capparis Aphylla	Karíl	Wild caper .	Scarce.
Cedrela Tuna	Tún	Toon	Do.
Celtis Caucasica	Batkar.		
Carissa Diffusa	Garanda.		
Cotoneaster Bacillris ...	Lúni.		
Caesalpinia Sepiaria ...	Uri	...	Prickly climber.
Cissus Carnosa (Vitis) ...	Gidar-dk	...	Climber.
Crataegus Oxyacantha ...	Gwábudla ...	Hawthorn.	
D.			
Dalbergia Sissu	Táli	Shisham	Scarce.
Dodonœa Viscosa	Sannatta	...	Common.
Diospyros Lotus	Amlok.		
Desmodium Tiliafolium ...	Chamkát.		
Dendro Calmusstricla ...	Báns	Bamboo	Not Common.
E.			
Eugenia Jumbolana ...	Jáman	...	Scarce.
Erythrina Suberosa ...	Dauldhák.		
Ehretia Serrata	Punna.		
Euphorbia Royleana ...	Thor	Cactus.	
F.			
Flacourtia Ramontchi ...	Kako.		
Ficus Cordifolia	Kákbar.		
" Roxburghu	Tussi Barri.		
" Virgata	Phagwára ...	...	Leaves for fodder.
" Carica	Phagwári.		
Fraxinus Floribunda ...	Sùm	Ash	Very scarce.
Ficus religiosa	Pipal	} Fig.	
" Bengalensis	Bor		

CHAP. I, A.
Physical Aspects.
Botany.

List of Forest trees in the Ráwalpindi District—continued.

Botanical.	Local.	English.	REMARKS.
G.			
Grewia Oppositifolia ...	Dháman	...	Leaves much prized for fodder.
" Vestita	Farri	...	Small tree, leaves for fodder.
" Spr.	Phara	...	Small tree.
H.			
Helicteres-isora	Marophal Dhámni.		
Hedera Helix	Banbalkari ...	Ivy.	
I.			
Indigofera Heterantha ...	Kainti	Wild Indigo ...	Common shrub.
Ilex Dipyrena	Harbambar ...	Holly	Near Murree only.
J.			
Juglans Regia	Akhrot	Walnut	Scarce.
K.			
Kydia Calycina	Pulla.		
L.			
Lonicera Guinguelocularis	Tita-bateri ...	Honeysuckle.	
M.			
Mallotus Philippinensis ...	Kamíla	...	Large shrub.
Melia Azedarach	Dhrek	...	A good deal planted in villages.
Morus Serrata	Karún ; Tút ...	Mulberry.	
" Indica	Sháh Tút.		
Myrsina Africana	Kukal Vavaring.		
Moringa Pterygo-Sperma...	Sohanja	Horse radish tree.	
Mimosa Rubicaulis ...	Rál.		
N.			
Nerium Odorum	Ganíra	Oleander	Common along streams. Poisonous. Stems for pipes.
O.			
Odina Wordier	Kamlai	...	Soft, used in bedstead making.
Olea Cuspidata	Kahu, Kawa ...	Olive	Common.
P.			
Populus Alba	Sufeda	Poplar, white.	
" Nigra	Palach	Poplar.	
" Ciliata			
Phyllanthus Embilica ...	Ambli	...	Leaves for tanning. Scarce.
Pinus Excelsa	Bair	Blue pine ..	Scarce.
" Longifolia	Chir	...	Common.
Pistacia integerrima ..	Kangar	...	Scarce.
Prunus Padus	Kálakát	Bird cherry ...	Fairly common.
Phyllanthus Nepalensis ...	Kalam		
Pyrus Variolosa	Batangi	Wild pear.	

List of Forest trees in the Ráwalpindi District—conclued.

Botanical.	Local.	English.	REMARKS.
Parrotia Jacquemontiana	Paser		
Punica Granatum	Daruni, Anár ...	Pomegranate.	
Phœnix Sylvestris	Khajur, Khaji ...	Date	Only about Murree.
Prunus Persica	Aru	Peach.	
" Armeniaca ...	Hári	Apricot.	
Periploca Aphylla... ...	Bata		
Q.			
Quercus Annulata... ...	Barín	Oak.	Scarce.
" Incána	Rhin		Common.
" Dilatata	Barungi		
R.			
Rhododendron Arboreum	Kikri	Rhododendron ...	Scarce.
Rosa Macrophylla... ...	Tarni Bangulâb ...	Wild-rose... ...	Climber.
Rhus Punjabensis	Tatri.		
Rhamnus Virgatus ...	Setapajja.		
S.			
Salix Tetrasperma... ...	Bíns	Willow.	Scarce.
Sageretia Brandrethiana ...	Gangher.		
Solonum Verbascifolium ...	Kála Mewa.		
T.			
Tamarix Articulata ...	Ukáon	...	Scarce.
Taxus Baccata	Barmi	Yew	Scarce.
Terminalia Bellerica ...	Bahera.		
Tetranthera Laurifolia ...	Maida Sak.		
U.			
Ulmus Wallichiána ...	Kain	Elm	Scarce.
V.			
Vitex Negundo	Marwán	...	For basket work.
Viburnum Fœtens... ...	Kúnch.		
W.			
Woodfordia Floribunda ...	Dhávi.		
X.			
Xanthoxylum Alatum ...	Timbar.		
Z.			
Zizyphus Jujuba	Bher	Indian apple.	
" Nummularia ...	Bheri, jhári ...	...	Leaves for fodder.
" Oxyphylla ...	Amlai, jand ...		

On the higher spurs Biár (*pinus excelsa*) or blue pine, is very common. All the larger trees have long since been felled. The existing trees are young, robust and of rapid and healthy growth. This species seems specially suited to the higher forests of the district. It occurs only in the forests of mixed oak and broad-leaved species which are the most valuable in the district.

CHAP. I, A.
Physical Aspects.
Botany.

Of the valuable species it is the easiest to reproduce. Being robust and occurring in forests from which the larger oaks have been removed, it tends to dominate the young oaks which are of much slower growth, and in several forests it has been found necessary to go in for large fellings of young trees. The timber is much valued, being, in the absence of deodar, the best wood available for shingles and ordinary purposes. It is to be found chiefly in the Burban, Masot and Patriata-Paphundi forests.

The paludar (*abies webbiana*) is not found in the State forests, but grows abundantly in the Murree Municipal forest. It is a fine handsome tree growing often to a height exceeding 100 feet, and measuring 10 feet in girth, 3 feet from the surface of the ground. The wood is white, soft and coarse grained, but in spite of its liability to rot is much used for building purposes. Chir (*pinus longifolia*) or green pine is the characteristic tree of the Murree and Kahuta hills. It grows on all the hills between the height of 2,000 and 6,000 feet. It does not in these forests attain the great height to which it grows elsewhere, and 75 feet is given as the average height of the older trees. In some forests, however, such as Panjar and Ariari, trees of 120 feet in height, with clean straight boles, are occasionally to be seen. The timber is resinous but not very durable. It is not in much demand by contractors, as it is not so durable nor so readily worked as either bair or paludar. As firewood it is disliked on account of the volumes of acrid smoke which it gives forth. The heart wood is used all over the hills for torches, and the resin is extracted and sold to native doctors.

The finest forest of chir are Panjar, Kaloian-Chakla and Ariari. The timber of the Panjar trees is famous in the district, and is said by the people to be as good as deodar.

The chir can easily be raised from seed in the Punjab plains, and is a common tree in the compounds in Rawalpindi station.

The three oaks are "rhin (*quercus incana*) "barungi" (*quercus dilatata*) and "baren" (*quercus annulata*). Of these the last is a moderate-sized tree, scarce in these hills, being found only in warm ravines in Sangseri and a few other forests. The other two, barungi and rhin, are common. Barungi is found only in the higher forests, especially in forests Masot and Burban. In Burban, about 5 miles north of Murree, there is a very fine old forest of these trees covering about 56 acres. Both these oaks, but especially barungi, grow to a great height, and both are very severely lopped, as the leaves are valuable as fodder. In many forests the trees are reduced almost to bare poles. Barungi in favourable circumstance attains a girth of twelve feet and a height of a hundred feet. Rhin, which grows luxuriantly and spreads down to a much lower level of the hills, is the commonest of all the oaks. It seldom attains a girth of more than five or six feet.

CHAP. I, A
Physical Aspects.
Botany.

The timber of the barungi is hard, heavy and durable. That of the rhin is less valuable and is reddish, heavy and coarse. Rhin is much preferred for firewood, as it affords a great deal of heat without giving off much smoke. Blacksmiths value it for charcoal. The mountain ash (*fraxinus floribunda*) or "sum" is practically confined to Murree Municipal forest. The wood was in much demand in early days and only one specimen has been seen in State forests. Similarly the yew (*taxus baccata*) or "barmi," though small trees are found in demarcated Government forests, attains a respectable size only within the Municipal area. The hill toon (*cedrela serrata*) or "drawa" grows in moist shady places in Patriata and Murree forests. The Himalayan horse chestnut (*pavia indica*) or "bankhor," the wild cherry (*prunus pradus*) or "kálakát," wild-pear (*pyrus variolosa*), or "batangi" and the "kandar" (*conus macrophylla*) are found in most of the higher forests.

Two kinds of poplar known as "palách" (*populus ciliata*) and "sufeda" (*populus alba*), willow (*salix tetrasperma*) or "bís" and maple are fairly common near Murree. The small-leaved elm (*ulmus wallichiana*) or "káin" is grown near the higher villages, but is not common.

Lower down the commonest trees are "phulahi," (*acacia modesta*) and "khair" (*acacia catechu*) which attain their best growth about Tret. With them is found everywhere the "kangar" (*pistacia integerrima*), an excellent tree, much valued for its fine hard wood. The peculiar dark hornlike excrescence which forms on the leaf bud of this tree is in other districts used medicinally, but such a use of it appears in this district to be unknown. In these middle hills the wild olive or "kao," "kamlai" *odina wodier*), recognizable by its red berries, shisham, "kamila" (*mallotus philippensis*), "ber" (*zizyphus*) and "kakoh" (*flacourtia ramonthi*) are the commonest standards. Most of them, especially the acacias, and the wild olive with the wild pomegranate (*punica granatum*), known as "daruni," are much browsed down by sheep and goats, or lopped for fuel and fodder.

Curiosities are a few rhodendrons "ikhar," near Murree, bamboos in Baroha and Karlot do forests and on the banks of the Jhelum in Bindla and Panjar forests, and boxwood, or Shamshád, (*buxus seonperviprens*) in Baroha and Karlot forests. The last never grows sufficiently high for exploitation.

Of brushwoods "chamkát" (*desmodeum tiliæfolium*) is used for making baskets. "sannatha" (*dodonea viscosa*) is much used for thatching houses. "Garanda" (*carissa diffusa*), the wild olive and the wild pomegranate are the usual browsing for goats. "Bhekar" (*justicia adhatoda*) is shunned by all animals, even goats avoiding it, and is little used except for fuel or charcoal.

CHAP. I. A.
Physical Aspects.
Botany.

The shisham is everywhere valued, and is a frequent cause of dispute in partition cases. The "dhrek" (*melia azedarach*), is grown in the courtyard of the great majority of houses in Murree and Kahuta Tahsils. Mingled with mulberries and shishams, it attains a good height along the district roads in Kahuta.

Of the flowering trees the "kachnár" or "kaliár" (*bauhinia variegata*) is common about Tret and in parts of Kahuta. It is greatly lopped for fodder and the flowers are eaten by the people as a kind of "ság."

The "chachhra" (*butea frondosa*) is commonest about Panjar and Kultea, and is occasionally met with in the low hills near Kahuta. Its presence is said to denote good soil. The leaves are supposed to give a richness to buffalo milk, and the tree is in consequence mercilessly lopped. A similar treatment is meeted out to "dhaman" (*grewia oppositofolia*) whose leaves are everywhere valued as fodder.

Bor and pipal trees occur only in villages, or on the edges of outlying tanks. The cotton tree (*bombax malabaricum*), known as "simmal," grows at an elevation of from 2,000 to 3,500 feet, and attains a great height. At Saidpur and Nurpur in Ráwalpindi Tahsil there are a few chenar trees, and in Ráwalpindi the Cantonment authorities have planted one or two, but the want of sufficient water makes their cultivation in this district difficult.

In the lower portions of the Kahuta Tahsíl and the north-east of Gujar Khan mango trees are not uncommon. These are generally found in small groups of three or four rather than in groves, and are a source of considerable profit to their owners.

They are very jealously guarded and are usually protected from the ravages of sheep and goats by a ring fence of thorns.

In all the Murree villages and in many of the upper Kahuta villages a good deal of attention is paid to the cultivation of fruit trees. The commonest of all these trees is the walnut, akhrot or khor, (*juglans regia*). It appears to be indigenous, and several forests contain one or two. The walnuts are sold usually at the rate of an anna the hundred on the tree, but occasionally the children are allowed to dispose of the produce. The walnut juice is supposed to stain the lips a very beautiful colour.

The "amlok" (*diaspyros lotus*) is common but held in no esteem. There is no market for the ripe fruit which is even said to be dangerous, but some profit is made by selling the dried fruit to Ráwalpindi traders.

The "nakh" (*pyrus communis*), "hari" (*prunus armeniaa*) and "alucha" (*prunus domestica*) with a few pears and apples are common. A good many pomegranates are grown about Kahuti and generally through the hills, but the trees are practically wild and the fruit in consequence poor.

CHAP. I, A.
Physical Aspects.
Grasses.

The grasses of the district are of some importance, as in many places there is very little fodder (apart from fodder crops specially grown) to be had for cattle, and good supplies are only to be obtained in areas specially reserved for grass production. On the whole the plains of the district are not well-off for good grasses, and the mounted branches of the army located in Ráwalpindi have to obtain their supplies from areas specially set apart for that purpose on the hill sides of the Márgalla spur. Some only of the principal varieties can be noticed here.

Dub grass is not much found. *Khabbul* is a good, short, green grass, growing chiefly in the plains, on the boundaries of fields of good soil, and in the hills on fallow level lands. This is probably the best grass in the district, and is to be had at all times of the year when rain has fallen. It is eaten by all kinds of cattle, sheep and goats, and is very good for horses. *Sawák* is a longer grass, growing best in places where water has been lying. This ripens with the kharíf harvest and in places is sown as a crop, drying up after the rains have fully ceased. It is a very good grass up to the time of ripening, after that it is little good as it completely dries up.

Barún is another long grass ripening in the kharíf harvest, sowing itself. It is said to be injurious to cattle when unripe, fairly useful afterwards. *Paran* is a good grass, excellent for horses and cattle, growing in cool places. *Paluána* is a long fine grass of a light color, ripening with the autumn harvest, chiefly found in the hills. It reaches a height of 2 or 3 feet. It is not sown, but often preserved in plots set apart on the hillside, and cut for winter use in October and November. *Sarála* is an autumn grass preserved in rakhs, reaches a height of 2 feet, only to be eaten green. It is found in Murree Tahsíl and in other hill tracts.

Babbar is an inferior fodder grass which grows much in the hills. It is little good for grazing, but is valuable for making rough ropes, and is much used by the Murree Brewery Company for making cases for beer bottles. Rs. 1-4-0 per maund is often paid for it for these purposes.

Lundar or *lumbar* is an inferior hill grass. *Dab* is a very poor grass, only eaten by cattle when nothing else can be got. It is of a bright green color. *Akar* is a weedy grass of very little value for grazing, but much used in making mud roofs in the hills. The natives have a proverb about this grass—"Akar ghás aur phiphre ka más kisi kám ne áta." "*Akar* grass and lights are of no use." There are many other varieties locally known, but these are the most common and important.

Wild animals.

The district is very free from carnivora. There may be one bear; there may be three or four leopards; there certainly are not more. Apparently there is one bear on the Patriata ridge, and

CHAP. I, A. Physical Aspects. Wild animals.

enthusiastic sportsmen have been allowed to see him, but he is a precious source of income to one or two shikaris and he will probably die of old age. Bears and leopards are not uncommon in the adjoining Galis of Hazara, but they seem to avoid the Murree hills. Two or three leopards do hang about the ridges, but it is evident from the "pag" marks that each has a very large beat. During the summer of 1906, several cattle were killed and an attack was made on a pony stabled in the compound of Patriata bungalow. Many inventions were found out, but the leopard never came to hand. It is many years since a leopard was killed in these hills.

Wild pigs are common and do much harm both to crops and to seedlings in the forests. Porcupines too are an enemy to the forester. Hogdeer are not uncommon in the forests. The plains of the district have practically no small game.

There are legends of a few pheasant about Murree. A few jungle fowl do exist, but they are hard to get. Chikor are found on all the hills down to the low spurs. Tanda and Delha, both near Murree, are the usual places to shoot, but by going further afield better sport is obtainable. Chikor are markedly on the increase, and a bag of ten couple is now quite possible. Sissi are to be found in the low hills, and a good many are to be found about Pharwala. Grey partridge are common enough; black partridge are rare.

Of migratory birds, sandgrouse, duck, snipe, geese, coulon, and quail appear in the district. Duck are found on the rivers and tanks but not in any numbers. Sandgrouse, also few, appear in Gujar Khan. The Kanshi occasionally harbours geese and coulon: the Soan more frequently. Snipe can be got in any numbers only at Khanna. A few can be picked up here and there through the district Quail come in very large numbers in spring and autumn.

Sport in the district is not good, but game would probably be much more plentiful if there were not such a large number of guns always ready to shoot it wherever it is to be found, and if netting and snaring were not such prevalent practices with the natives of the district. Owing to the establishment of something resembling a "close season" game is on the increase, but the large number of guns in the district prevents this from being a rapid process. Licenses to carry guns now always contain a proviso against the shooting of game within this close period, and the bye-laws of the Murree Municipality impose a fine upon the sale of game during these months. These rules have no doubt had a beneficial effect.

Fish.

Fishing is to be got in the Jhelum, the Soan, its tributaries and the Chablat, a tributary of the Haro. The commonest fish are the mahsir and the rohu. Dynamiting and indiscriminate netting have done much to destroy the fishing, but the recently resus

Reptiles.

citated North of India Fishing Club may do something to improve the sport. The club protects portions of the Soan, Kurang, Leh and Chablat.

Snakes are not so common as in many other districts, but are not altogether unknown.

The following statement shows the rewards paid during recent years for the destruction of snakes and wild animals. :—

Year.	Animals.		Snakes.	
	Numbers.	Rewards.	Numbers.	Rewards.
		Rs. a. p.		Rs. a. p.
1904	15	97 0 0	217	28 0 0
1905	18	75 0 0	132	17 0 0
1906	18	96 0 0	102	13 8 0

Climate.

The district rejoices in a particularly good climate. The cold weather is long, the hot weather short. The periods of severe heat and cold are usually short.

Ráwalpindi.

The climate of the Murree and Kahúta hills is naturally different from that of the plains portion of the district. In the cantonment itself January and February are usually extremely cold and rainy. March is generally pleasant with occasional rainy days. April is slightly hotter and drier, but generally a pleasant month.

May and June are dusty and hot. A great increase in the heat is felt immediately after the cutting of the spring crops in the early part of May, but owing to the proximity of the hills the heat during these months is not so great as in other districts further south. The heat reaches is maximum in June. In July the rains fall, and in the beginning of August there is generally a break with a short period of extreme heat, after which it generally gradually cools down through September, the end of which and the beginning of October after the cessation of the rain are sometimes feverish.

The latter half of October and November are generally the most delightful part of the year. There is little rain and the air is cool with bright sunshine. December again is often cold and bleak. The nights in December, January and early February are often intensely cold, and east winds which are very trying, are often prevalent.

The hills.

The climate of the Murree and Kahúta hills is much colder than that of Ráwalpindi itself. Except in the foot hills on the south snow falls throughout the Murree Tahsil and in the north of Kahuta. Murree itself is generally under snow for two months in the year, and the Narar Mountain for about one month. Snow

CHAP. I, A.
Physical Aspects.
The hills.

falls at the end of December or the beginning of January, and continues falling till the end of February. For six months in the year the people desert their houses on the higher hills and seek refuge from the cold in hamlets on the river bank or low down in the deep valleys. In the winter of 1905 the hills were under snow for three months, and snow lay for a day or two throughout the Kahru Circle. Except in the tract north of Murree and Narar, where snow falls every year and no spring crops are sown, snow may fall in any part of the hills, but it melts at once. The summer climate is not unlike that of other hill tracts. May and June, in general pleasant, are occasionally hot and stuffy. A temperature of 102° in Murree was recorded on 12th and 13th June 1876. July and August are the rainy months and the surrounding hills are often for weeks hid in mist. September and October are dry and clear but very feverish.

Locally the following names are sometimes used for the various seasons. The hot season is called "Unhála;" the rains as elsewhere "Barsát;" the spring "Khuli-Bahár," and the autumn and winter "Thandi Bahár."

Rainfall.

There are two "rainy seasons" in the Ráwalpindi district, the summer rains or "*barsát,*" and the winter rains. The summer rains, which are common to the whole country, present no very striking features unless it be their occasionally curiously partial nature. They begin about the second week in July, and end about the beginning of the second week in September. There is generally a break early in August. The eastern half of the district at this time gets much more rain than the western. Rain often falls on one side of the Márgalla hills and not on the other, and so with other spurs, and even when there are no hills to account for it a belt of rain will cross the district watering some villages and leaving others quite dry. Heavy rain has been known to fall in Ráwalpindi city and not a drop in the civil station and ***vice versâ.***

The other rainy season which is more peculiarly characteristic of this district commences usually in January and lasts to the beginning of March, and there is often rain again at the end of that month. The rain at this time is usually copious throughout the district, and it is to this rainfall that much of the success of the wheat cultivation of Gujar Khán, Ráwalpindi and Kallar is due.

As for variations in rainfall the rule is that the further the tract lies from the hills the less rain it gets; but the rainfall seems also to follow the river valleys in a curious manner, and often seems very capricious. The valleys on the Soan banks get much more rain than those a few miles distant from it.

In Murree and Kahúta Tahsils the rainfall is both ample and regular. Within the last twenty years the summer rainfall at Kahuta only once fell below 20 inches, and at Murree only once fell

below 30 inches. In both tahsils the winter rains are more certain and vary from the normal less frequently than the summer rains. In the Murree Tahsil the gazette average is fairly representative of the rainfall of an ordinary year, but in the Kahúta Tahsil the ordinary rainfall is rather below the average rainfall. It may be taken that the rainfall of an ordinary year in Kahúta is about 28 inches in the summer and 10 inches in the winter. This amount of rain is ample for all agricultural operations. In the south of the tahsil around Kallar the rainfall is somewhat less than this, and is about the same as the rainfall of Ráwalpindi, and is certainly more than that of Gujar Khán.

CHAP I, A.
Physical Aspects.
Rainfall.

In Ráwalpindi Tahsil also the winter rains are more regular than the summer rains, and the rainfall of January and March, which are the two important months, is the most regular of all. The only raingauge is kept in Ráwalpindi Cantonments, where it is estimated that the rainfall of an average year is about 29 inches, of which 21 inches fall in summer and 8 inches in winter. But the rainfall is by no means uniform over the tahsil. In the west and north of the tahsil the rainfall diminishes towards the Attock border, while towards the east the average increases. South of the Soan the rainfall is less than that of Ráwalpindi and approximates towards that of Gujar Khán.

From Gujar Khán east the rainfall increases. At Gujar Khán itself the annual rainfall has only once or twice fallen below 20 inches. The south-west corner of this tahsil is the driest portion of the district and resembles the adjoining Chakwal Tahsil of Jhelum. In general all over the district the rainfall is regular and sufficient for the maturing of the crops of both harvests.

Section B.—History.

Antiquities Taxila.

The district abounds in objects of great antiquarian interest which have been minutely examined and described by General Cunningham, from whose account the following description is abridged, with a few additions taken from a report by Mr. Delmerick.

The site of the ancient city of Taxila has been identified by General Cunningham and other authorities with the ruins near Sháh-dheri, which are scattered over a wide space, extending about three miles from north to south, and two miles from east to west, just above the Margala Pass. The remains of *stupas* and monasteries extend for several miles further on all sides, but the actual ruins of the city are confined within the limits above-mentioned. These ruins consist of several distinct portions, which are called by separate names even in the present day. Beginning at the south,

CHAP. I, B. — History. — Antiquities. Taxila.

their names are—1st, Bír, or Pher; 2nd Hatiál; 3rd, Sir-kap-ka-kot; 4th, Kacha-kot; 5th, Bábarkhána; 6th, Sir-Sukh-ka-kot.

The most ancient part of these ruins, according to the belief of the people, is the great mound on which stands the small village of Bír, or Pher. The mound itself is 4,000 feet in length from north to south, and 2,000 feet in breadth, with a circuit of 10,800 feet, or rather more than two miles. On the west side, towards the rock-seated village of Sháh-dheri, the Bír mound has an elevation of from 15 to 25 feet above the fields close by, but as the ground continues to slope towards Sháh-dheri, the general elevation is not less than from 25 to 35 feet. On the east, towards the Tabra or Tamra nullah, it rises 40 feet above the fields, and 68 feet above the bed of the stream. The remains of the walls can be traced only in a few places both on the east and west sides; but the whole surface is covered with broken stones and fragments of bricks and pottery. Here the old coins are found in greater numbers than in any other part of the ruins, and here, also, a single man collected for General Cunningham, in about two hours, a double handful of bits of lapis lazuli, which are not to be seen elsewhere. Judging from the size of the place, it is probably the site of the inhabited part of the city in the time of Hwen Thsang.

Hatiál is a strong fortified position on the west end of a spur of the Margala range, and immediately to the north-east of the Bír mound, from which it is separated by the Tabra nullah. About half a mile from Bír the spur is divided into two nearly parallel ridges, about 1,500 feet apart, which run almost due west to the bank of the Tabra, where they are joined by a high earthen rampart. The clear space thus enclosed is not more than 2,000 feet by 1,000 feet, but the whole circuit of the defences, along the ridges and the artificial ramparts, is about 8,400 feet or upwards of 1½ miles. At the east end, the two parallel ridges are joined by a stone wall, 15 feet 4 inches thick, with square towers at intervals, all of which are still in very good order. The crest of the south, or main ridge, is 291 feet above the general level of fields, but the north ridge has an elevation of only 163 feet. Between these two there is a small rocky ridge, 206 feet in height, crowned by a large bastion or tower, which the people look upon as a *stupa* or tope.[1] There is a similar tower on the crest of the north ridge. The two ridges fall rapidly towards the west for about 1,200 feet, till they meet the general slope of the intervening ground; and these points are the two gateways of the fort, the one being due north of the other. The north ridge then rises again, and running to the W. S.-W. for 2,000 feet terminates in a square topped mound, 130

(1) *Stupa* is the Sanscrit term for a mound or barrow, either of masonry or earth. The Pali form is *thúpo*, and also *thúpa* or *thuva* in the early Aryan inscriptions from the Punjab. The term now used is *thúp* for a tolerably perfect building, and *thúpi* for a ruined mound. It is, therefore, much to be regretted that we should have adopted the word *top* which preserves neither the spelling nor the pronunciation of the original.—General Cunningham, "Ancient Geography," p. 121 *n*.

CHAP. I, B.
History.
Antiquities Taxila.

feet high. This part of the ridge is entirely covered with the remains of buildings, and near its east end a villager discovered some copper coins in a ruined tope.

The fortified city of Sir-kap is situated on a large level mound immediately at the north foot of Hatiál, of which it really forms a part, as its walls are joined to those of the citadel. It is half a mile in length from north to south, with a breadth of 2,000 feet at the south end, but of only 1,400 feet at the north end. The circuit of Sir-kap is 2,300 feet or upwards of 1½ miles. The walls, which are built entirely of squared stone, are 14 feet 9 inches thick, with square towers of 30 feet face, separated by curtains of 140 feet. The east and north walls are straight, but the line of west wall is broken by a deep recess. There are two large gaps in each of these walls, all of which are said to be the sites of the ancient gates. One of these in the north face is undoubted, as it lies due north of the two gateways of the Hatiál citadel, and due south of the three ruined mounds in the Bábar-khána. A second in the east face is equally undoubted, as parts of the walls of the gateway still remain, with portions of paved roadway leading directly up to it. A third opening in the west face, immediately opposite the last, is almost equally certain, as all the old foundations inside the city are carefully laid out at right angles due north and south. The position of Sir-kap is naturally very strong, as it is well defended on all sides by the lofty citadel of Hatiál on the south, by the Tabra nullah on the west, and by the Gau nullah on the east and north sides. The entire circuit of the walls of the two places is 14,200 feet, or nearly 2¾ miles.

Kacha-kot, or the "mud fort," lies to the north of Sir-kap, in a strong isolated position formed by the doubling round of the Tabra nullah below the junction of the Gau nullah which together surround the place on all sides except the east. The ramparts of Kacha-kot, as the name imports, are formed entirely of earth, and rise to a height of from 30 to 50 feet above the stream. On the east side there are no traces of any defences, and inside there are no traces of any buildings. It is difficult, therefore, to say for what purpose it was intended, but as the Gau nullah runs through it, General Cuningham thinks it probable that Kacha-kot was meant as a place of safety for elephants and other cattle during a time of siege. It is 6,700 feet or upwards of 1¼ miles in circuit. The people usually called it Kot, and this name is also applied to Sir-kap, but when they wish to distinguish it from the latter they called it Kacha-kot.

Bábar-khána is the name of the tract of land lying between the Lundi nullah on the north, and the Tabra and Gau nullah on the south. It includes Kacha-kot, and extends about one mile on each side of it to the east and west, embracing the great mound of Serki-Pind on the north-west, and the Gangu group of topes and other

CHAP. I, B. History. Antiquities. Taxila.

ruins on the east. In the very middle of this tract, where the Lundi and Tabra nullahs approach one another within one thousand feet, stands a lofty mound 45 feet in height, called Jandiála Pind, after a small hamlet close by. To the west of the *pind* or mound, there is another mass of ruins of a greater breadth, but only 29 feet in height, which is evidently the remains of a large monastery. It is remarkable that the road which runs through the two gateways of the Hatiál citadel, and through the north gateway of Sir-kap passes in a direct line due north between these two mounds until it meets the ruins of a large *stupa* on the bank of the Lundi river, 1,200 feet beyond the Jandiála Pind. This General Cunningham believes to be the famous *stupa* which was said to have been erected by Asoka in the third century before Christ to celebrate the gift, already alluded to, by Buddha of his head in charity.

The large fortified enclosure, called Sir-Sukh, is situated at the north-east corner of the Bábar-khána, beyond the Lundi nullah. In shape it is very nearly square, the north and south sides being each 4,500 feet in length, the west side 3,300 feet, and the east side 3,000 feet. The whole circuit, therefore, is 15,300 feet or nearly three miles. The south face, which is protected by the Lundi nullah is similar in its construction to the defences of Sir-kap. The walls are built of squared stones, smoothed on the outer face only, and are 18 feet thick, with square towers at intervals of 120 feet. The towers of this face have been very carefully built with splayed foundations, all the stones being nicely bevelled to form a convex slope. The tower at the south-east corner, which is the highest part now standing, is 10 feet above the interior ground, and 25 feet above the low ground on the bank of the stream. Towards the west end, where the stones have been removed, the south wall is not more than 2 or 3 feet in height above the interior ground. Of the east and west faces about one-half of the walls can still be traced, but of the north face there is but little left except some mounds at the two corners. Inside there are three villages named Mirpur, Thupkia, and Pind, with a large ruined mound called Pindora, which is 600 feet square at base. At half a mile to the west there is an outer line of high earthen mounds running due north and south for upwards of 2,000 feet, when it bends to the E. N.-E. Beyond this the line is only traceable by a broad belt of broken stones, extending for 3,500 feet, when it turns to the south-east for about 1,200 feet and joins the north face of Sir-Sukh. These external lines would appear to be the remains of a large outwork which once rested its north-west angle on the Lundi nullah. The entire circuit of Sir-Sukh and its out-work is 20,300 feet, or nearly five miles.

The largest *stupa* among the ruins is situated on a high mound to the north of the Tabra nullah, and about half a mile to the east of Shahpur. It is generally known as the "Chir Thúp," or the "split tope," from a broad cut having been made right through

CHAP. I, B.
History.
Antiquities.
Taxila.

the building either by General Ventura or by some previous explorer. The cut is 20 feet broad at the west end, and 38 feet at the east end, with a depth of 32 feet. This enormous opening has utterly destroyed the appearance of the monument from the east and west sides, where it looks like two massive mounds 17 and 18 feet thick at top, with a gap of 40 feet between them. These numbers give a top diameter of 75 feet; but at 32 feet lower the circumference is 337 feet, which gives a diameter of 107⅓ feet. But as the outer casing of smoothed stones has entirely disappeared, this diameter could not have been less than 115 or 120 feet; and as the point of measurement was 20 feet above the level of the courtyard, the actual base diameter may be set down as from 120 to 125 feet or within two feet of that of the great Mánikiála tope. The loss of the outer casing has brought to light the interior construction, which was regulated by a series of walls radiating from the centre of the building. These walls are 4¼ feet thick and 11½ feet apart, where visible outside of the broken surface. As the outer wall or casing would have been at least as thick as these radiating walls, we shall obtain the least possible diamater of the building at 20 feet above the ground level, by adding twice the thickness of one wall, or 8½ feet to the measured diameter of 107⅓ feet, which gives a minimum diameter of nearly 116 feet. But as the external wall would have been almost certainly of greater thickness than the radiating walls, we may conclude that the diameter at 20 feet above the ground was at least 120 feet, and that it may have been as much as 125 feet.

Such are the different parts of this great city, whose ruins, covering an area of six square miles, are more extensive, more interesting, and in much better preservation than those of any other ancient place in the Punjab. The great city of Sir-kap, with its citadel of Hatiál, and its detached work of Bir and Kacha-kot, has a circuit of 4¾ miles, and the large fort of Sir-Sukh with its out-work, is of the same size, each of them being nearly as large as Sháh Jahán's imperial city of Delhi, while the number and size of the *stupas*, monasteries, and other religions buildings is even more wonderful than the great extent of the city.(1)

This is taken from General Cunningham's account of this ancient town, but it must be confessed that it requires the eye of a trained expert, to detect all that is described above. To the ordinary passer-by the visible signs of this ancient Taxila are few and far between, though something may be noticed by the most casual observer. The site is now occupied by the village sites of four *mauzas*, Dheri-Sháhán, Ghila, Matáwa and Mohra Sháhwáli. There is a station on the North-Western Railway close to it, known as the Kála-ka-Sarái Station, and the trains now daily steam past actually under the walls of the old city.

(1) General Cunningham gives a minute description of all the existing ruins including 44 topes, monasteries, and monoliths.

CHAP. I, B.
History.
Bhallar-Tope.

The great Bhallar-Tope is visible from this spot about six miles north of it. This Tope has been described by General Burnes and noticed by General Court. It stands in a most commanding position on the last spur of the long range of hills which forms the north boundary of the Haro valley. It can be seen from the high road for a length of eight miles from Kála-ka-Sarái to near Wáh. It is 5½ miles to the north of Dheri-Sháhán, on the east side of the high road leading to Haripur in Hazára, and about half a mile to the north of the Haro river. It has at one time been opened by a native chief; probably the Gakhar chief of Khánpur on the Haro. At present the Bhallar-Tope is about 43 feet in height above the rock on which it stands, but as the top of the building is much dilapidated, the original height of the dome must have been considerably more. General Cunningham discovered in the neighbourhood the remains of what he believed to be two large religious establishments.

Karmál.

There are three neighbouring villages of the name of Karm, which are distinguished from each other as Karmál, Karm Gujar, and Karm Párcha. The first is situated exactly one mile to the south of the Great Shahpur tope, and about 1½ miles to the east-south-east of the Bír mound. The second is nearly two miles to the east of Karmál, on the old road to Ráwalpindi by the Shaldita Pass, and the last is about one mile to the north-north-east of Karm Gújar. Near the first and second of these villages there are several ruined topes and monasteries, besides some natural caves which from the vicinity of four small topes would appear to have been once occupied by Buddhist monks. All the topes have been opened by the villagers who profess to have found nothing. These remains, therefore, possess but little interest in themselves, but they are of importance as being probably connected with the history of the great King Asoka. During his stay at Takkasila, Hwen Thsang visited the *stupa* which the people had built over the spot where Kunál, the eldest son of Asoka, had been deprived of his eyes through the false accusation of his step-mother. The story is told at some length by Burnouf, from whom we learn how the prince's sight was afterwards restored, and the wicked step-mother duly punished.(1) The position of the chief tope of Karmál tallies so exactly with the site of Kunála *stupa*, as described by Hwen Thsang, as to leave little doubt of their identity. The close agreement of the names is also curious although it is perhaps accidental. But with the two villages of Karm Gújar and Karm Párcha so close at hand, it is easy to see how the name of Kunála or Kúnala would be altered to Karmál, to make it assimilate with the other.

"With these topes of Karmál," says General Cunningham, "I close my account of the ruins which still exist around the ancient Taxilla. Altogether I have traced the remains of 55 topes, 28

(1) "Introduction a L' Historie de Buddhisme Indien," p. 40.

CHAP. I. B. History. Karmál.

monasteries, and 9 temples, of which the largest are quite equal in size to any that have yet been discovered. The number of these remains that has escaped the destructive intolerance of the Muhammadans is wonderfully large. Many of them, no doubt, owe their safety to their singularly unattractive positions on the tops of steep waterless hills. The escape of others is, perhaps, due to the large size of the stones they are built with, which defied the powers of ordinary destructiveness. But, perhaps, the most active agent in their favour was the greater proximity of the ancient city, whose ruins must have furnished materials for the houses of Sháh-dheri for several centuries. As Sháh-dheri itself is a very large village containing 950 houses and about 5,000 inhabitants, the amount of material carried away from the old city must have been very great indeed; and to this cause chiefly I would attribute the complete disappearance of all the buildings from the nearest part of the old city on the ruined mound of Bír."

Mánkiála.

About 14 miles south of Ráwalpindi and three miles from Riwat lie the ruins of Mánkiála. The name is said to have been derived from Rája Man or Manik, who built thegreat *stupa* to the south of the village. The old town is usually said to have been called Manikpur or Maniknagar, and it is so named in most versions of the curious legend of Rasálu, which place the residence of the *rakshasas*, or demons, in the old city to the north of the great tope. As the capital of the *rakshasas*, it is sometimes also called "Bedádnagar," or the "City of Injustice." An interesting account of the legend of Rasálu has been given by Colonel Abbot [1] Many other versions are given but all agree in the main points of the story, although they differ in some of the minor details. Rasálu, son of Saliváhana, Rája of Siálkot, was the enemy of the seven *rakshasas* who lived at Manikpur, or Udinagar, to the west of the Jhelum. Every day these *rakshasas* ate a man, the victim being drawn by lot from the people of Manikpur. One day Rasálu came to the city where he found a woman cooking her food, and alternately weeping and singing. Astonished at her strange behaviour, Rasálu addressed the woman, who replied: "I sing for joy, because my only son is to be married to-day, and I weep for grief because he has been drawn by lot as the victim of the *rakshasas*." "Weep no more," said Rasálu "and keep your son, for I will encounter the *rakshasas*." Accordingly Rasálu offers to take the place of the victim and goes forth to meet the seven demons. He boldly attacks them and kills them all, except Thera, who is said to be still alive in a cavern of Gandgarh, whence his bellowings are occasionally heard by the people. This legend General Cunningham identifies with the Buddhist legend of Sakya's offering of his body to appease the hunger of seven tiger cubs. The scene of this legend is placed by Hwen Thsang $33\frac{2}{3}$ miles to the south-east of Taxila, which is the exact bearing and distance of Mánikiála

(1) "Bengal Asiatic Society's Journal," 1854, p. 519.

CHAP. I, B.
History.
Mánkiála.

from the ruined city near Sháh-dheri, and this distance is completely in accordance with the statements of the other pilgrims. Unfortunately the place is not named by any one of them, but its position is so clearly marked by their concurring bearings and distance, as to leave no doubt of its identity with Mánikiála. Here, then, we must look for the famous *stupa* of the "body-offering" of Buddha, which was one of the four great topes of north-west India. It is probably to be identified in the great tope successfully explored by General Court in 1834. The "Huta-murta" or "body-offering" is twice mentioned in the inscriptions that were found covering the deposit, and there are other claims of this tope to be identified with the body-offering *stupa* which have been fully discussed and accepted by General Cunningham. The points of resemblance between the two legends are sufficiently striking and obvious. For the compassionate Buddha who had left his wife, Yasodhara, we have the equally compassionate Rasálu who had given up the society of his queen, Kokila. As Buddha offers his body to appease the hunger of the seven starving tiger-cubs, so Rasálu offers himself instead of the woman's only son who was destined to appease the hunger of the seven *rakshasas*. Lastly, the scene of both legends is laid at Mankipur or Mánikiála. Again, the Rasálu legend has come down to us in two distinct forms. In one version, which is probably the older one, the opponents of the hero are all human beings, while in the other they are all *rakshasas* or demons. In the first, the seven enemies are the three brother Rájas—Sir-kap, Sir-sukh, and Amba, with their four sisters—Kapi, Kalpi, Munda and Mundeh. Sir-kap is addicted to gambling, and his stakes are human heads, which he invariably wins, until opposed by Rasálu. This addiction to human flesh connects Sir-kap and his brethren both with the tiger-cubs of the earlier Buddhist legend, and with the *rakshasas* of the latter one.

Accepting this view of the legend as, at least, a very probable one, the present appearance of Mánkiála with its numerous ruins of religious edifices, without any traces of either city or fort, may be easily explained by the fact that the great capital of Manikpur was the ideal creation of the fabulist to give reality to the tradition, while the topes and temples were the substantial creations of devout Buddhists. General Abbot, when he examined the ruins around the Mánikiála tope, could "not see any evidence of the existence of a city. The area occupied by submerged ruins would not have comprised a very considerable village, while the comparatively large number of wrought stones denotes some costly structure which might have occupied the entire site." After a careful examination of the site, General Cunningham came to the same conclusion that there are no traces of a large city; and believes that all the massive walls of cut-stone must have belonged to costly monasteries and other large religious edifices. The people point to the high ground immediately to the west of the great tope as the site of the

Raja Man's palace, because pieces of plaster are found there only, and not in other parts of the ruins. Here it is probable that the satraps of Taxila may have taken up their residence when they came to pay their respect to the famous shrine of the "body gift" of Buddha. Here, also, there may have been a small town of about 1,500 or 2,000 houses, which extended to the northward and occupied the whole of the rising ground on which the village of Mánikiála now stands. The people are unanimous in their statements that the city was destroyed by fire; and this belief is corroborated by the quantities of charcoal and ashes which are found amongst all the ruined buildings. It was further confirmed by excavations made in the great monastery to the north of General Court's tope. There is nothing, however, to indicate at what date this destruction took place. Among the ruins of Mánikiála, General Cunningham describes 15 topes and as many monasteries, which, judging by the frequent occurrence of massive stone walls in other positions, were probably not more than two-thirds of the great religious buildings of this once famous spot. The Mánikiála tope is one of the places that strive for the honor of being the burial place of Alexander's horse Bucephalus. **CHAP. I, B.** **History.** **Mánkiála.**

At Márgalla there is an old cutting through the hill crossing the Lahore and Peshàwar road. The roadway is paved with flags of stone, while a stone slab inserted into the wall on the side contains an inscription which shows that the work was completed in 1083 A.H., corresponding with 1672 A.D., or about the time when the Emperor Aurangzeb marched to Hasan Abdál and sent his son Prince Sultán with an army against the Khattaks and other trans-Indus tribes. The pavement was no doubt a remarkable achievement in those days, but it has been completely cast into the shade by the new cutting higher up to the east by our own engineers, who have also constructed at the latter place a fine column to the memory of the late General John Nicholson and a fountain for drinking purposes, the water of which is brought in leaden pipes from a considerable distance. A tunnel in the North-Western Railway 900 feet long also pierces the hills about 100 feet to the north of the road. **Márgalla.**

Riwát, the first camping ground from Ráwalpindi on the Grand Trunk Road, towards Jhelum, owes its interest to the tomb of Sultán Sárang, the renowned Gakhar chief, which is situated there. This is not a tomb of any architectural pretension nor of much antiquity, having been built in the middle of the 16th century, after the death of Sultán Sárang, and no less than 16 sons in action during the struggles between the Emperor Hamáyún and his enemies. The tope of Mánikiála is visible from here, some three miles to the south-east. **Riwát.**

The district of Ráwalpindi from its geographical position is associated with much of great interest in the history of India. **Early History**

CHAP. I, B.
History.
Early History

The armies of each successive invader from the west or north-west swept across the Chhachh plain, and down southwards right across the district, and this to a great extent accounts for the fact that the races inhabiting it are much mixed and that they are nearly all Musalmán. No old and archaic forms could exist in the constant turmoil in which the district has been involved until within a very few years of the present time. The names of Alexander, Mahmúd of Ghazni, Bábar and "Tamurlane" or Timúr, are all closely connected with the district, and as will have been already seen from the description of places of antiquarian interest given above, relics of Buddhism are common and of great archæological value, and many of the legends of the great and mythical Rasálu are connected with places within this tract.

The history of the district up to the time of Alexander is only of interest to the antiquarian. General Cunningham has elaborated theories, partly from what appear to him to be similarities of names as to the original inhabitants of the district, and as these are the views of so great an authority they deserve full notice.

General Cunningham holds that the Takkás were the earliest inhabitants of this part of the country after the Aryás who are supposed to have come into it about 1426 B.C. The tract between the Indus and Jhelum, known as Samma, is supposed to have been held by Anavás of the Timar race, Pesháwar and the country west of the Indus, by the Ghandharee.

The Takkás, an early Turanian race, are believed to have held the whole or the greater part of the Sind-Ságar Doáb. From this tribe General Cunningham, with some probability, derives the name of Taxilla, or Takshasila, which, at the time of Alexander, was a large and wealthy city, the most populous between the Indus and Hydaspes (Jhelum) and is identified beyond a doubt with the ruins of Sháh-dheri or Dheri-Sháhán, a few miles to the north of the Márgalla Pass in the district of Ráwalpindi. So far, General Cunningham's theory as to the early population of the district seems reasonable enough; but he goes on to assert his belief that already, before the time of Alexander, the Takkás had been ousted from the neighbourhood of Taxila by the Awáns. This theory he builds upon the scanty foundation existing in the similarity of the name Awán or "Anuwán," as he would read it, with that of Amanda, the district in which, according to Pliny, the town of Taxila was situated. The traditions of the Awáns are so strikingly contradictory of this theory, as to deprive it of much, if not all, the weight with which the authority of General Cunningham would invest it.

The Takkás or Takshâh Scythians probably overran the northern portion of India somewhere about 600 B.C. They probably became incorporated with the tribes of the country and

turned Buddhist, which religion they professed at the time of Alexander's invasion. Nanda, King of the Prásu, was of this race. This is about the time of the foundation of Gaznipur by the Bhatti Zadávas.

About 500 B.C. Darius conquered Western India. In 331 B.C. came Alexander's invasion. At this time Abisares ruled the country, north of the Ráwalpindi district, and Porus ruled that east of the Jhelum river. Taxiles ruled the tract lying between the Indus and the Jhelum.

At this time Taxila would appear to have formed, nominally at any rate, part of the kingdom of Magadha. For 50 years after Alexander's visit, the people of Taxila are said to have rebelled against Bindusara, King of Magadha.(1) Their subjugation was effected by the famous Asoka, who resided at Taxila as Viceroy of the Punjab during his father's life-time. From the reign of Asoka, the Buddhist Emperor of Upper India, we may suppose Buddhism to have taken root in the Northern Punjab, but Taxila itself again fades from history until A.D. 400, when it was visited as a place of peculiar sanctity by the Chinese Buddhist pilgrim Fa Hian. By Fa Hian Taxila is mentioned under the name of Chusha-shi-lo, or the "severed head," and he adds that "Buddha bestowed his head in alms at this place, hence they gave this name to the country." The allusion apparently is to the word "Takshasira" or the "severed head," the usual name by which Taxila was known to the Buddhists of India. In A.D. 630, and again in A.D. 643, Taxila was visited by the most famous of the Chinese pilgrims, Hwen Thsang. He describes the city as above $1\frac{2}{3}$ miles in circuit. The royal family was extinct and the Province a dependency of Kashmír. The land, irrigated by numbers of springs and water-courses, was famous for its fertility. The monasteries were numerous, but mostly in ruins. The *stupa* of King Asoka, built on the spot where Buddha in a former existence had made an alms gift of his head or, as some said, of one thousand heads in as many previous existences, was situated two miles to the north of the city. Thus during the Buddhist period, Taxila was celebrated as the legendary scene of one of Buddha's most meritorious acts of alms-giving, the bestowal of his head in charity. The origin of the legend General Cunningham attributes to the ancient name of Takshasila, which, by a very slight alteration, becomes Takshasira, or the "severed heads." That the name is not derived from the fable is rendered probable by the preservation of the ancient name and spelling by the Greeks. It must not, however, be forgotten that Alexander's invasion preceded Asoka's reign by little more than 50 years, and though the derivation of the name of Taxilla from the charitable act of Buddha is only mentioned by Fa Hian in A.D. 400, yet it is possible that the

(1) The edicts of Asoka are dated about the middle of the third century, B.C.

CHAP. I, B.

History

Early history

same belief was current during or even before the reign of Asoka. Buddhism, according to some authorities, dates back as far as the middle of the sixth century B.C. (Elphinstone's "History of India," p. 120, 5th Ed.) The relics of Buddhism in the Ráwalpindi district are not confined to Taxila. Hasan Abdál, Mánikiála, and many other places are intimately connected with Buddhist legends, and contain ruins of Buddhistic buildings. Mánikiála especially is a place of great interest, as the legendary scene of Buddhá's gift of his body to appease the hungher of seven tiger cubs. Further allusion to this legend is made above.[1] The period of Hwen Thsang's visits to India, however, was one of the decay of Buddhism. The Brahman revival, to which India owes its present form of Hinduism, had already set in, in the early years of the fifth cetury,[2] and must have been at its height in the days of Hwen Thsang. From this time the light afforded by the records of the Chinese pilgrims fails, and a long period of darkness swallows up the years that intervened before the Muhammadan invasions and the commencement of real history.

The Ghakkars

From the point where the traditions of antiquity give place to the more authentic records of the historian, the history of the district becomes that of the Ghakkar tribe, who, brought into a prominent position at the time of the early Muhammadan invasions, maintained their rule over Ráwalpindi and parts of the Hazára and Jhelum districts, more or less independent of the sovereign powers at Delhi and Agra, until annihilated at the beginning of the present century by the Sikhs. General Cunningham, rightly or wrongly identifies the Ghakkars with the subjects of Abisares, mentioned by Alexander's historians as being king of the hilly country to the north and north-east, *i.e.*, Murree and Kahuta, of Taxila, called, as he gathers from the Mahabhárata and the Puránas, Abhisara. He supposes the Greek historians by a not uncommon confusion to have given to the king the name of his kingdom.[3] According to the account given by themselves, the Ghakkars are of Persian origin, descendants from Sultán Kaid, son of Gohar, or Kaigohar, a native of Kayan in Ispahán. This Sultán Kaid is said to have invaded and conquered Thibet and Badakhshán, and to have there established a dynasty which ruled for seven or, as others say, ten generations. They then advanced upon Kashmír,[4] and overcoming all opposition, established themselves there during several generations.[5] At last an insurrection drove the reigning prince, named Rustam, from the throne. He perished, but his son, Kabil

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(1) Cunningham's "Arch. Rep," 1863-64, p. 115, alluding to the legend of the "thousand heads," General Cunningham adds: "The present name of the district is "Chach Hazára, which I take to be only a corruption of " Shirshasahasra, or the "thousand heads."

(2) Elphinstone's "History of India," p. 1222 (5th ed.) "He (Fa Hian) found Buddhism flourishing in the tract between China and India, but declining in the Punjab, and languishing in the last stage of decay in the countries on the Ganges and the Jumna."

(3) "Arch. Rep." 1863-64, p. 22 ff.

(4) Their leader into Kashmir was Sultán Kab. Griffin's "Punjab Chiefs," p. 574.

(5) Theactual number is variously given as 17 and 13.

Shah, escaped and took refuge with Nasír-ud-dín Sabaktagín, who was then reigning in Kábul, 787 A.D.[1] Kabil left a son, Ghakkar Shah, who having with the remnant of his tribe accompained Mahmúd of Ghazni on one of his invasions of India, obtained leave to settle beyond the Indus. Such is the story told by the Ghakkars of their origin and entry into the country. It is, however, full of inconsistencies. It is certain that they overran Kashmír in very early days, and traces of them are still to be found to the north and west of that country, but there is no proof whatever that they founded a dynasty there. The names attributed to their chiefs are in many instances Muhammadan, and this fact gives an air of great improbability to their story; for the Ghakkars, according to Ferishta and other Muhammadan historians, were not converted until the 13th century. Nor are there any traces of an early Muhammadan dynasity in Kashmír, which was converted, or, if the Ghakkar traditions be true, re-converted, to the creed of Islám in 1327, during the reign of Shams-ud-dín. Ferishta indeed declares that prior to their conversion in the 13th century the Ghakkars were mere savages without a religion at all, addicted to infanticide and polyandry in its grossest forms. The same author also speaks of the Ghakkars as already settled in the Punjab in A.D. 682. He says that about that time they formed an alliance with the Afgháns against the Rája of Lahore. Again the account of their entry into India in the train of Mahmúd of Ghazni is strangely contradicted by the fact that in 1008 this same Mahmúd was nearly defeated in a battle with the Hindu confederation by the impetuosity of an attack made upon his camp by a force of 30,000 Ghakkars. The Ghakkar legends, therefore, are probably to be rejected as fabulous, and it is not unlikely that, as General Cunningham supposes, they have been located in the Punjab hills from the times prior to Alexander's invasion. There is nothing at any rate to contradict this supposition, though certainly the reasons upon which the learned author's theory is traced are somewhat abstruse. That they occupied a somewhat important position in the second century of our era is probable; for there are reasons for supposing that Rája Húdi the great enemy and afterwards heir of Rasálu, Rája of Siálkot, and hero of so many Punjab traditions, was a Ghakkar. He certainly was not of Aryan birth.[2]

The first event of authentic history peculiarly connected with this district is the battle already alluded to between Mahmúd Shah and the Hindu army under Pirthwi Rája, in A.D. 1008, in which the Ghakkars so prominently distinguished themselves. This battle, which decided the fate of India, is said to have been fought on the plain of Chhachh, near Hazro and Attock

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(1) Griffin, *ib.*
(2) Elphinstone's "History of India" (ed. 5), p. 329. General Cunningham's "Arch. Rep. 1863-64, p. 1.

CHAP. I, B.
History.
The Ghakkars'

on the Indus. It ended in the total defeat of the Rájpút confederacy, and India lay at the mercy of the Muhammadan invaders. The Ghakkars, however, appear to have remained quietly in possession of their lands, including the greater part of this district, and are next heard of in 1205, when they took opportunity from certain reverses sustained by Shaháb-ud-dín Ghori in Kharizm, to rise in open revolt against the paramount power. They ravaged the country as far as Lahore itself, and occupied the whole Northern Punjab. But Sháhab-ud dín entering India quickly restored order; he defeated the Ghakkars after an obstinate battle, the fortune of which was only turned in his favor by the opportune arrival of reinforcements from Delhi under his deputy, Kutub-ud-din, who had remained faithful in spite of his master's reverses.(1) The Ghakkars having once given way, the slaughter was prodigious. Shaháb-ud-dín pursued them to their mountain homes, and took the opportunity of forcing them to embrace the Muhammadan religion, which, as Elphinstone remarks(2) "was the easier done, as they had very little notion of any other." As, however, Sháhab-ud-dín returning westwards after the restoration of order in India, was encamped on the banks of the Indus, his tent being left open towards the river for the sake of coolness, a band of Ghakkars "swam the river at midnight to the spot where the king's tent was pitched, and, entering unopposed, despatched him with numerous wounds,"(3) and thus avenged the wrongs of India upon its conqueror.

A little more than a century later we read again of the Ghakkars, who during the reign of Muhammad Tughlak at Delhi, in A. D. 1340, took the opportunity offered by revolts in Bengal and an invasion of Mughals and Afgháns from the north, to ravage the Punjab as soon as the Mughals turned their backs. They even occupied Lahore,(4) and (in the words of Elphinstone) "completed the ruin of the Province." About this time Boja Khan, a younger scion of the family, rebelled against the reigning chief, and set up an independent chiefship at Rohtás, in the Jhelum district. The Bojiál clan, which derives its name from him, still inhabits the neighbourhood of Rohtás and Domeli. The subsequent history of the tribe is given in the words of Mr. Griffin in his Punjab Chiefs.(5)

Rája Jahán Dád Khán, head of the Khanpur Ghakkars of Khanpur, traverses this account of the origin of his clan. He states that the account of the Ghakkars quoted by Cunningham from Ferishta does not apply at all to them, but was really an account of a tribe called Khokar, not Ghakkar. These Khokars occupied a

(1) Tráikh-i-Alfi. Elliot's "Muhammadan Historians," 58, p. 1.
(2) "History of India" (ed. 5), p. 367.
(3) Elphinstone's "History of India" (5th ed.
(4) *Ib.*, p. 406.
(5)

tract in the Salt Range, where the Ghakkars never were. These Khokars practised polyandry, but the Ghakkars never did. Rája Jahán Dád is also clear that Gakhar should be written thus and not Ghakhar as Cunningham writes it; Ferishta has it Ghakar which, it is said, is simply a mistake for Khokar. It is also stated that it was the Khokars who were defeated by Shaháb-ud-dín Ghori, and a band of whom afterwards murdered that chief, and this is the account given in H. M. Elliot's Biographical Index, in which he says that the assassination was accomplished "by some Khokars," page 301. In the "Tabakat Akbari," by Wazir Nizám-ud-dín Ahmad, Nerari, written in 1623, and quoted by Ferishta, who wrote in 1637, the events quoted above are clearly stated to have occurred to the Khokar tribe. This is also supported by the account given in the Tabakat-i-Násiri, published in 1864 by Captain Lee.

As to their origin, it is stated that they descended from Ijaab Jord, a Persian king, and were driven out on his defeat and death and went to China, where Ferozshah, their leader, took service with his followers as a sort of guard to the Emperor. Thence they went to Thibet, and in the beginning of the 7th century they became Musalmáns. Later they came to India with Mahmúd of Ghazni. Kaigohar was the leader who came with Mahmúd of Ghazni, and from whom the name of Gakhar is derived; Malik Khad and his son Gula came again in the middle of the 15th century, conquered a part of the country north of the Jhelum and founded Guliana in the Gujar Khan tahsíl. After this period the history of the clan is fairly well known. The present heads of the Ghakkar clan are indignant at having been confused with the Khokars.

History subsequent to Timúr's invasion.

The invasion of Timúr or Tamerlane, took place during the chiefship of Gul Muhammad, who died in 1403 A. D. His two immediate successors were not men of any note; but Jastar Khan, brother of Pír Khan, is often mentioned in Muhammadan history as a brave and successful general, he overran Kashmír and took prisoner Allah Shah, king of that country. Then, uniting with Malik Toghan, a Turki general, he seized Jullundur and marched towards Delhi. At Ludhiána he was attacked by the king's troops and defeated, on the 8th October 1442, and retired to Ráwalpindi, whence he made attacks alternately on Lahore and Jummoo, the Rája of which latter place, Rai Bhím, he defeated and killed, till 1453, when he died. Tatar Khan's rule was of short duration, for his nephew, Hati Khan, rebelled against him, captured and put him to death. His two sons were minors, and the Janjuah chief, Darwesh Khan, took the opportunity of recovering much of the country which the Ghakkars had taken from his tribe. Hati Khan opposed him, but was defeated and compelled to fly to Basal, while his cousins Sárang Khan and Adam Khan, escaped to Dangalli, where the Janjuah army followed them. Hati Khan now collected his

CHAP. I. B.

History.

History subsequent to Timúr's invasion.

tribe, and attacking the Janjuahs on their march, routed them with great slaughter. Bábar Shah invaded India during the chiefship of Hati Khan, and in the Emperor's interesting autobiography is a notice of his contest with the Ghakkar chief. He marched against Pharwála, the capital of the Ghakkars, strongly situated in the hills, and captured it after a gallant resistance, Hati Khan making his escape from one gate of the town as the troops of Bábar entered by another. Sultán Sárang was now of age, and finding that he could not oust his cousin by force of arms, he procured his death by poison, and assumed the chiefship in 1525. He and his brother made their submission to Bábar, and Adam Khan, with a Ghakkar force, attended him to Delhi, and for this service the Pothiár (Putwár) country was confirmed to them by the Emperor. In 1541 Sher Shah having driven the Emperor Humáyún from India, built the famous fort of Rohtás, where he placed a garrison of 12,000 men under his general, Khowás Khan, to hinder the exile's return. Sárang Khan, remembering the generous way in which he had been treated by Bábar Shah, espoused the quarrel of his son, and kept the Rohtás garrison in a perpetual state of dispute, driving off convoys and wasting the country around the fort. On the death of Sher Shah in 1545, his son, Salím Shah, determined to punish the Ghakkars, and moved against them in force. Sárang Khan sued for peace, but all terms were refused, and his son Kamál Khan, sent to the imperial camp as an envoy, was thrown into chains. For two years, in the course of which Sultán Sárang and sixteen of his family fell in action, the Ghakkars fought with varying success, and in 1550, Prince Kamran, brother of Humáyún, with whom he was at feud and by whom he had just been expelled from Kábul, took refuge among them. The fort of Pharwála was often won and lost during these years of incessant war, but however many troops were sent against them, the Ghakkars brave and united, held their own, and Salím Shah found it impossible to subdue them. In 1553, Prince Kamran, who had again taken up arms against his brother, and who had been defeated near the Khaibar, fled to India, and took refuge at the court of Delhi. Salím Shah did not receive him with any favour, and the Prince then returned northward to his former host Adam Khan, who had succeeded his brother Sárang Khan. This chief stained the Ghakkar reputation for hospitality, and gave up his guest to Humáyún, who put out his eyes, and two years later re-entered Delhi in triumph, attended by the Ghakkar chief, who was richly rewarded for his treachery.

Moghal period and Sikh conquest.

Sultán Sárang had left two sons, Kamál Khan and Alawál Khan, and with the wife of the latter Laskar Khan, son of Adam Khan, fell in love, and in order to obtain her, put her husband to death. Kamál Khan was at Delhi when he heard the news of his brother's murder, and he complained to the Emperor Akbar, who had succeeded Humáyún in 1556, and obtained a grant of half the territory of Adam Khan. This chief would not yield, and Kamál,

CHAP. I. B.
History.
Moghal period and Sikh conquest.

Khan attacked him, took him prisoner and hung him to satisfy his revenge. Kamál Khan did not long enjoy his triumph, and died in 1859. The Ghakkar country now fell into a state of anarchy, and remained so for some years, till the Emperor divided it between the rival chiefs. To Jalál Khán, grandson of Adam Khan, he gave Dangalli, with 454 villages; to Mubárik Khan, son of Kamál Khan, Pharwála, with 333 villages; Akbarabad, with 242 villages, he assigned to Shaikh Ganga, one of Adam Khan's younger sons; and Ráwalpindi to Said Khan, the third son of Sárang Khan. Mubárik Khan died the year after this arrangement, and his son did not long survive him. Shádmán Khan was an imbecile, and Pharwála was granted by the Emperor to Jalál Khan. This chief was a great warrior and fought as an Imperial general in Kohát, Bannu and Yusafzai, where he died at a great age in 1611. His son and grandson successively held rule, the latter dying in 1670. Allahdád Khán was, like Shádmán Khan, of weak intellect, but had a clever wife, who carried on affairs with spirit and success, till her son Dulu Murád Khan grew up and assumed the chiefship. He was renowned for his liberality, and on this account was named "Lakhi" Dulu Khan. He died in 1726. Then succeeded Muazzam Khan, who ruled 13 years, and Sultán Mukarrab Khan, the last independent Ghakkar chief. In his days the Ghakkar power was greater than it had perhaps ever been before. He defeated the Yusafzai Afgháns and Jang Kuli Khan of Khattak, and captured Gujrát, overrunning the Chib country as far north as Bhimber. He joined Ahmad Shah on his several Indian expeditions, and was treated by him with the greatest consideration, being confirmed in the possession of his large territories which extended from the Chenáb to the Indus. At length, in 1765, Sirdár Gujar Singh, Bhangi, the powerful Sikh chief, marched from Lahore, with a large force, against him. Mukarrab Khan fought a battle outside the walls of Gujrát, but was defeated and compelled to retire across the Jhelum, giving up his possessions in the Jech Doáb. His power being thus broken, the rival chiefs of his own tribe declared against him, and Himmat Khan, of Domeli, took him prisoner by treachery and put him to death, himself assuming the headship of the tribe. The two elder sons of Mukarrab Khan took Pharwála, the two younger Dangalli; but they quarrelled among themselves, and Sirdar Gujar Singh seized everything, with the exception of Pharwála, which was divided among the brothers. Sadullah Khan and Nazar Ali Khan died without male issue, and Mansúr Khan and Shádmán Khan succeeded to their shares, which they held till 1818, when Anand Singh Thepuria, grandson of the famous Milka Singh of Ráwalpindi, seized their whole estates and reduced them to absolute poverty, though the family was, in 1826, allowed some proprietary rights in Pharwála.

During Sikh days there is no history of the Ghakkars to record. They were ground down by the exactions of men like

CHAP. I. B
History.

Budh Singh, Sindhánwália, and Rája Guláb Singh of Jummoo, the latter of whom threw Shádmán Khan and Mudhat Khan, second son of Mansúr Khan, into prison, where they miserably perished. Karamdád Khan, son of Rája Hayát Ullah Khan, is now the head of the Pharwála family, and the first among the Ghakkars of the Ráwalpindi district.

Moghal Divisions.

In the days of Akbar this district formed part of the Sirkár or district of Sindh-Ságar, including the whole Sindh-Ságar Doáb. The *mahāls* or *parganahs* forming part of this enormous tract, which can be identified as belonging in whole or in part to this district are:—Pharwála (Pharhalah), Dangalli (Dangarri), and Akbarabad Terkhery (Takhtpuri).

The revenue paid by these *mahāls* as recorded in the "Ain Akbari," amounted in round numbers to 3 *lakhs* of rupees. It is impossible, however, to determine the boundaries of the *mahāls*; and much of the territory included in them, particularly in those of Pharwála and Dangalli, must have been as a matter of fact only nominally subject at any time to the Empire, for we know that the Ghakkars held almost uncontrolled sway between the Jhelum river and the Márgalla Pass, and westwards as far as the Khairi Múrat hills. Within these boundaries they were always supreme, and sometimes extended far beyond them. During their rule the district was divided into three *parganahs*, Dangalli, Pharwála and Ráwalpindi, subdivided into *tappahs* mainly corresponding with the *ilakás* of the Sikh period.

The Sikh Rule.

Returning to the Sikhs, it has already been seen how Gujar Singh, Bhangi, conquered Mukarrab Khan in 1765. This chief made his head-quarters at Gujrát, but his power extended almost to Ráwalpindi, and it was to him that the first subjugation of the warlike tribes of Ráwalpindi and the Salt Range is to be attributed. Ghakkar, Janjuah and Awán alike gave way before him. In these conquests, and notably in the siege of the famous fort of Rohtás held by the Ghakkars, he was assisted by Sirdár Charrat Singh, Sukarchakia. He was succeeded, upon his death in 1788, by his son Sáhib Singh, who fell before Ranjít Singh in 1810.

Ráwalpindi itself was occupied shortly after the fall of Mukarrab Khan, by another Sikh Sirdár, Milka Singh Thepuria, so-called from the village of Thepur founded by him in the Lahore district. He occupied territory also in Gujrát and Gujránwála, and thence marched northwards upon Ráwalpindi. It was then an insignificant place, but Milka Singh, perceiving how admirably the place was situated, fixed his head-quarters there, building new houses and in some measure fortifying the town. In spite of Afghán inroads, and the resistance of the Ghakkars, he soon conquered a tract of country round Ráwalpindi worth three *lakhs* of rupees a year, and even the tribes of Hazára had respect for his name and power. He died in 1804, and his estates were confirmed by Ranjít

Singh to his son Jiún Singh. In 1814, however, on the death of Jiún Singh, Ranjít Singh seized the whole estates in Ráwalpindi and the district passed under the administration of the central power at Lahore. **CHAP. I, B. — History. The Sikh Rule.**

The Murree hills retained their independence for some time longer. Milka Singh claimed, it is true, allegiance from the hill Ghakkar chiefs, and granted them *jágírs* of 107 hill villages. But the recipients hardly acknowledged the gift, which was more nominal than real. The mountaineers did not really submit to the Sikh rule until the present century was well begun. The famous Sirdár Hari Singh, Ranjít Singh's Governor of Hazára, twice invaded the hills between 1820 and 1830, and on the second occasion effected their subjugation. In 1831 the Murree hills were granted in *jágír* to Guláb Singh of Kashmír, who ruled them with a rod of iron. It is said that whenever the villagers were recusant, he used to let loose a regiment of Dográs upon them, and reward them by a poll rate for every hillman slain, at first of a rupee, then of eight, and finally of four annas. By these means the population was decimated, and the prosperity of the tract received a severe check.

The history of the country, from time immemorial overrun by hordes of invaders, from the Greeks to the Afgháns and a prey to intestine warfare, has not failed to leave its traces upon the character of the population. The temporary desolation, the plundered houses and deserted homesteads were all things of the hour, and are now forgotten; but their mark is to be discovered in the restless and inconstant character of the population, and in the party spirit, the blood feuds and bitter enmities, which survive to the present day.

British Rule.

In 1849, with the remainder of the Sikh territory, the district passed under British rule. The tranquillity which followed was broken in 1853 by an attempted outbreak led by Nádir Khan, a Ghakkar of Mándla, who joined a conspiracy which was formed in favor of a pretended son of Ranjít Singh, Prince Peshaura Singh. He had been murdered some years before at Attock, but the conspirators declared him to have escaped, and personified him by a Hindú mendicant. The rising might have been serious, but was promptly quelled by the district authorities. Nádir Khán was captured, tried for rebellion, convicted and hanged.

The Mutiny.

The following account of the events of 1857 is taken from the "Punjab Mutiny Report":—

"Mr. Thornton, the Commissioner, was at the head-quarters of this district at the commencement of the outbreak. He states that as soon as the news from the North-Western Provinces got abroad amongst the people, some of the well-disposed came and expressed to him their unfeigned sorrow at the prospect of the certain extinction of our rule! They considered the struggle a hopeless one for our nation. Hindustáni emissaries eagerly fostered this ide

CHAP. I, B.
History.
The Mutiny.

amongst the country-folk, assuring them that the King of Delhi had sent directions to his loyal subjects to send all the English down the Indus without hurting them, and that the deportation of the Hindustánís from the Punjab, which was going on, was simply a fulfilment by the English of the commands of the same potentate, who had forbidden the English to keep his subjects any longer up here, as he required their services at his capital!

"These idle tales found credence among the simple population of the Murree hills. They also had imaginary wrongs; they longed to renew their old intestine feuds, and retaliate on our countrymen also for the wrongs they thought we had done them. Rumours reached the Deputy Commissioner, Captain Cracroft, and the other authorities during May and June, of an uneasiness amongst some of the neighbouring tribes. It was affirmed that a *dua-i-khair*, or solemn compact, had been effected, that the object was an attack upon our power, from what quarter or on what place did not appear. Such information could not be slighted. The chiefs of several tribes were called to Murree, and told that their presence there would be of use to us, as affording a ready means of communication between Government and their several clans, should the active services of these be needed. In reality, these men were hostages; but, to prevent their thinking so, a small allowance of Rs. 8, per mensem was made to them by the authorities. As time wore on this allowance excited the jealousy of other tribes, whose representatives considered themselves neglected by not sharing in it. Other compacts were formed, and other plots hatched, which culminated on the night of the 2nd September, when the station of Murree was attacked by 300 men. The fidelity of one of Lady Lawrence's personal attendants, himself an influential man of one of the tribes which had risen, and the sagacity of the Local officers, were the means under God of saving Murree. Lieutenant Battye, Assistant Commissioner, was informed on the 1st idem by Hákim Khan, the individual above alluded to, that the place was to be attacked that night—he could not say by what force or from what quarter. The ladies of whom a large number were then in Murree, were immediately concentrated, the police and the detachment of European invalids were called out, the civil and military officers held a consultation, and despatched urgent requests for help to Mr. Thornton at Ráwalpindi and Major Becher at Hazára. A cordon of sentries was drawn round the station, composed of Europeans and the police force under Lieutenant Bracken, and strong pickets were posted at three places which were considered the most vulnerable. The enemy came at the dead of night, expecting no foe, looking only for butchery and spoil. They were briskly opposed by Captain Robinson and his party, and soon retired, leaving one corpse on the field. One of our men was wounded: he afterwards died. This skirmish constituted the whole of the fighting, but two bodies of the enemy of 100 men

each, held two neighbouring heights during the whole of the 2nd September, and, as there was no knowing how far the confederacy had spread, the station of Murree could not be weakened by sending men to drive them away. On the evening of 3rd the Commissioner arrived with a reinforcement from below; supplies of food, which he had providently ordered to be bought in Ráwalpindi and sent up, began to arrive; the country was scoured, rebellious villages were burnt, their cattle harried and their men seized. Twenty-seven men were punished, of whom 15 suffered death. The smoke of the eleven villages which were destroyed was seen afar by a party of Kharráls which was coming on to renew the attack; while the white and unscathed houses of Murree showed plainly that no burning had occurred there. The rebel force slunk off disheartened, and their tribe professed deep loyalty; but it was known to be second in ill-feeling only to the Dhúnds who made the attack.

"On Mr. Thornton's pressing solicitation, Major Becher had despatched from Abbottabad his company of the Satti tribe, numbering 40 men; this had joined Mr. Thornton. But on the receipt of more urgent letters, Major Becher sent, under the command of Captain Harding, accompanied by Captain Davies, nearly the whole of his force, leaving himself only 87 men, of whom all but 12 were recruits. The force was pushed across a most difficult country full of morasses and defiles. The Kharráls laid an ambush to cut it off, but Providence saved it. The road on which the trap was laid became impassible from the rains. The force turned off, and not till it had passed the spot did it learn the greatness of the peril from which it had been delivered. It returned to Hazára by Ráwalpindi, leaving Murree on the 14th. After the repulse of the Dhúnds it was found that the conspiracy affected many more clans and a much wider extent of country than had been suspected. It reached far into Hazára and nearly down to Ráwalpindi, and, excepting the Kharrál insurrection in Mooltan, was by far the most extensive rebellion that has occurred in the Punjab during the year. Treachery was added to violence. Two Hindustáni native doctors in Government employ, educated at Government institutions, and then practising in Murree, were found guilty of being sharers in the plot. They were both executed. There seems no doubt that the hillmen reckoned much on the support and directions they were to receive from their Hindustáni friends in the station and several of the domestic servants were seized and punished for complicity: several also fled from justice and escaped punishment. Two of the ringleaders in the raid are still free through the connivance of their countrymen.

"On the frontier, beyond the district of Ráwalpindi, are the homes of the wild and disorderly tribes of Sitána and Mangaltána. They are Muhammadans, keep a fanatic Hindustani-Muhammadan

CHAP. I, B.
History.
The Mutiny.

army, and are in communication with the Muhammadan Nawábs of the North-Western Provinces and Bengal through this army. They were sources of much anxiety to Captain Cracroft, the Deputy Commissioner. The state of feeling in Kashmír was unknown. The Mahárája had given no intimation, at that early period, of the line of policy he meant to pursue; there was a large force of Hindustani troops in the Peshávar district, one of which, the 55th Native Infantry, had mutinied on the 21st May. To guard against dangers from Kashmír and Pesháwar, it was found needful to organize a force of upwards of 1,500 policemen and *dák*-runners; this force was disposed down the rivers Jhelum and Indus. A movable column was composed of detachments from Her Majesty's 24th Foot and Captain Miller's Police Battalion to restrain the men of the country.

"The fort of Attock commands a very important ferry of the Indus, and Mr. McNabb, Assistant Commissioner, was deputed to occupy it, in order to superintend the provisioning of it for troops, which were constantly crossing the river, and to protect the ferry from attack. He performed this duty with great diligence and ability, until he was removed to act as Deputy Commissioner of Jhelum on Major Brown's promotion to the Commissionership of Leiah. Mr. McNabb was succeeded by Lieutenant Shortt, who was also deputed to follow up the Jhelum mutineers in July, and displayed much vigour in this excursion. In the district there were two regiments of Irregular Cavalry, the 58th Native Infantry and a wing of the 14th Native Infantry, a regiment of Gurkhas, and a native troop of horse artillery. This was a brigade powerful enough to give just cause for alarm; the Chief Commissioner, therefore, who was present at Ráwalpindi, determined to disarm the Native Infantry. This was done on the 7th July, but the men did not lay down their arms for upwards of an hour after they had been ordered to do so. Even after the disarming, the men of the 14th continued so insolent and insubordinate that they were all confined in the Central Jail. The Gurkhas remained perfectly staunch throughout, and did excellent service before Delhi. Other operations in this district were the despatch of reinforcements to Murree with Mr. Thornton, and the mission of a party to act against the mutineers of the 9th Irregular Cavalry."

Subsequent history.

The subsequent history of the district is more social than political. The quiet routine of ordinary administration has never been interrupted. The occasional darbars and reviews in Ráwalpindi and the frontier wars have for a little quickened the pulse of the district, but the history of the district is the social history of the Punjab. The only change of consequence was the separation of the Attock, Fatehjang and Pindigheb Tahsils, which were included in the Attock District on its formation on 1st April 1904.

Section C.—Population.

CHAP. I. C.
Population.
Density.

Rawalpindi District, with 278 persons to the square mile stands 16th among the 29 districts of the province in the density of total population on total area. In respect of density on cultivated area, with 612 persons to the square mile, it stands 11th. The pressure of the rural population on the cultivated and culturable areas is 514 and 447 respectively.

Distribution of population.

The population and density of each tahsil are given in the margin, the density being the ratio of the total population on the total area. In the hill portions of the district, where much of the area is under forests and much is unculturable, the population is less dense than in the plains. Nowhere is there any congestion. The Rawalpindi Tahsil, which is the most thickly populated, is also the best able to bear the burden. The densest population is around, and within ten miles of the contonment. The Kharora tract supports a population of only 186 to the square mile total area. In Gujar Khan population is much denser than in the adjoining Tahsils of Jhelum and Chakwal, but there is not much difference in the pressure of population on the cultivated area.

Tahsil.	Population 1901.	Density per square mile.
Rawalpindi	261,101	342
Kahuta	94,729	208
Murree	52,303	202
Gujar Khan	150,566	265

The district contains two towns and 1,182 villages. The population of the former is given in the margin. Only six per cent. of the population live in the towns practically all in Rawalpindi. There are very few large villages. Only 23 have a population of over 2,000 and none exceed 5,000. The rural population lives in numerous small hamlets, called "*dhoks*" which consist of from one to fifty houses. In the hills in particular this *dhok* system is universal. A hamlet of more than half a dozen houses is rare. Generally each family has its own set of buildings, dwelling house and cattle-sheds, in the midst of its own fields. The reasons for this arrangement in the hills are obvious. In the hills anywhere a large *abadi*, and not scattered hamlets, is the exception. Nowhere in the district within our times has the necessity for mutual protection driven the rural population to congregate in large villages. On the other hand there are two good reasons for separation. In the first place, the surface of the district is extremely variable in quality. The best land lies in patches situate at great distances from each other. In the second place, the great distinction in most parts of the district being between soils manured and unmanured, houses are naturally distributed with the view of readily obtaining manure for the most promising land.

Rawalpindi	87,688
Murree	1,844

CHAP. I, C.

Population.

Growth of population.

1881	... ...	471,079
1891	... ...	533,740
1901	... ...	558,699

The figures in the margin show the population of the district at the last three enumerations. The increase in the decade 1881—91 was 13 per cent. but that rate has not been kept up. Previous to and after 1881 a very large increase of population took place, due to the greatly increased security and prosperity of the tract, and to the gain by immigration consequent on the Kabul War, and the construction of the North-Western Railway. Since then no exceptional causes of increased population have been at work, and the increases which have taken place are due to increased prosperity. The years immediately before the census of 1901 were years of scarcity, and it is probable that, in spite of plague, the favourable harvests since then have resulted in a large increase.

Rawalpindi itself has increased very much faster than the rest of the district and is daily increasing. From 1881 to 1891, the rate of increase was 40 per cent., and from 1891 to 1901 10 per cent. The corresponding figures for rural population were 7 per cent. and 2 per cent. The following table shows the fluctuations of population by tahsils :—

Tahsils.	Total population.			Percentage of increase (+) or decrease (—).	
	1881.	1891.	1901.	1881-91.	1891-1901.
Total district	471,079	533,740	558,699	+13	+5
Rawalpindi	211,275	243,141	261,101	+15	+7
Kahuta	87,210	92,372	94,729	+6	+2·5
Murree	36,709	44,004	50,459	+20	+15
Gujar Khan	133,396	152,455	150,566	+15	—1

Almost the whole urban population is included in Rawalpindi Tahsil, and the population figures for the tahsil are a great deal affected by the prosperity or adversity of the city and cantonment. From 1868 to 1881 urban population increased 85 per cent., from 1881 to 1891 40 per cent. and from 1891 to 1901 19 per cent. During the same periods rural population increased 8, 7 and 2 per cent., respectively. Since 1881 the increase of rural population has been 10 per cent. In times of famine and scarcity work has always been available within the tahsil, and not many men wander off elsewhere.

In Gujar Khan the census has always been taken at an unfortunate time. That of 1881 was taken in a year of drought

CHAP. I, C.
Population
Growth of population.

and many men had wan ered off to Ráwalpindi and Attock in search of employment on the railways which were then under construction. The census of 1891 was taken in a year of prosperity, and that of 1901 after the tahsil had passed through a series of lean years, and through one or two years of positive distress, little short of famine. The population is wholly rural and dependent on agriculture. Calamities of seasons will always affect the population, but the rate of increase is not below the average rate of the district. Since 1881 the increase has been 13 per cent. The Kahuta figures call for no special comment. The increase between 1881 and 1901 was 8 per cent.

The most striking increase in population has taken place in Murree Tahsil, where there is greater room for expansion than in the other tahsils. The increase between 1881 and 1901 was 38 per cent. The figures appear even more striking if allowance is made for the peculiar conditions under which the census of 1881 was taken. In his Census Report of 1881 Mr. Steedman wrote:—

"In Murree the cause of the influx of strangers was different. The census was taken in February. The rains of 1880 were a failure in the greater portion of the Ráwalpindi and Kahúta Tahsils, and almost entirely in Gujar Khan. This deficiency was followed by, I fancy, the driest cold weather the district ever experienced. There was hardly a drop of rain from September until the end of February, after the census had been taken. Consequently all the cattle had been driven up into the Murree hills for grazing. With each village drove a few able-bodied zamindars went, leaving their women and children at home. I was in camp in Southern Kahuta and across Gujar Khan during the end of February and the beginning of March, and everywhere I heard the same tale: 'Half the cattle have died of hunger, the other half have been taken to the hills.' In fact so large a number of strangers had penetrated into the hills by the 18th February, that special measures had to be taken for their enumeration."

The urban population is small, and its variations need no special remark. The census is taken in the winter, when the ordinary bazar population as well as the residents and the troops have gone. In the season when the station is full and the troops have moved up to the hills, the population is very large. But the increase in the rural population is very remarkable. Even making allowance for the possible presence of immigrants from Punch and Kashmir, and the continual and ever-growing traffic in the cart road, still the fact remains that the rural population is increasing at an alarming pace. This is due in the main to the habits of the people. Many zamindars own land in several villages, or at least in several hamlets. The houses are scattered all over the fields, and every man's ambition seems to be to marry as many wives as he has houses. The people are generally prosperous and an unfailing sign of prosperity is a multitude of children. No one can wander from village to village, or pass orders on mutation cases, without being struck by the extraordinary

CHAP. I, C. Population.

fecundity of the people. In the Kahuta hills excessive polygamy is not nearly so common, but this is only because the people are not nearly so prosperous. Those who can afford it, marry nearly as often as the Muhammadan law allows.

Migration.

Statistics are given in Statement 8—Volume B. The population of the district is not migratory, but owing to the presence of a large cantonment and the length of railway line there is always a certain fluctuating population of coolies and labourers of all kinds and of military followers, and persons of a similar description. The great wave of immigration which disturbed the figures of 1881 has died away. It owed its existence to the extraordinary demand for labour for the construction of the North-Western Railway, to the transport arrangements in connection with the Afghan Wars and to the vast numbers of persons who took the opportunity of escaping from scarcity and misgovernment in Kashmir when the prohibition of migration from that state was removed in 1878. The largest number of immigrants come from the United Provinces of Agra and Oudh, and find their way to Ráwalpindi Cantonment as followers or servants. They have little effect on the district. There is no corresponding emigration. The two largest permanent streams of immigration are between this district and Kashmir and Afghanistan.

A very large number of men come from Kashmir in summer to work as coolies in Murree. They return in autumn and do not find their way into the migration figures. A considerable number of Suddans from Poonch also bring their buffaloes down in autumn, and otherwise periodic migration from Kashmir is large. But a large proportion of Kashmir immigrants settle permanently in the district. A good many are women who marry into the hill tribes in Murree and Kahúta. The men apparently settle in Ráwalpindi as petty tradesmen, though a good many are to be found scattered over all the tahsils and employed in various capacities. Few villages of any size are without one or two of these strangers. The Pathan immigration consists chiefly of labourers and carriers. The fact that the census is taken in winter causes a very large exaggeration in the figures for this migration. In the summer there are in the district very few immigrants from across the border. Of the Punjab districts, Jhelum is the principal contributor to the population. A good deal is due to marriage customs, but more to the superior security and chances of employment in this district. There is little permanent immigration. Among all immigrants the proportion of females to males is only about 35 in 100. On the whole the district is a gainer in the interchange of migration. The colonies have had little effect on the population.

Age.

The figures for age, sex and civil condition by religions are given in Statement 10, Part B.

CHAP. I. C.

Population.

Age.

The following statement shows the age distribution of 10,000 persons of both sexes :—

Age period.	Male.	Female.	Total.	Age period.	Male.	Female.	Total.
0 under 5	641	620	1,261	35 and under 40	328	264	592
5 and under 10	724	640	1,364	40 " " 45	328	294	622
10 " " 15	653	492	1,145	45 " " 50	196	163	359
15 " " 20	449	387	836	50 " " 55	233	192	425
20 " " 25	431	378	809	55 " " 60	86	64	150
25 " " 30	466	416	882	60 and over ...	362	285	647
30 " " 35	471	437	908				

Vital statistics.

The system employed is that described in Chapter II, Part I of the Census Report for 1901. In Ráwalpindi births and deaths must be reported by the head of the family to the municipal authorities within three days under penalty of a fine. Elsewhere the village watchman maintains birth and death registers, and brings them to the thána once a week. From these registers the police muharrirs compile the fuller registers which they maintain. The thána returns are submitted to the Superintendent of Police, who forwards them to the Civil Surgeon.

The conclusion arrived at by the Superintendent of the Census of 1901 was that in rural areas the returns of vital statistics are probably comparatively trustworthy. The village watchman, almost invariably a native of the village, has a small well-defined area to deal with, and the constant fear of inspection does much to secure fairly accurate registration. It is doubtful if the registration in towns is as complete. Probably in Ráwalpindi it is not.

Average birth-rate.

Statement No. 11, Volume B, shows the birth and death-rates per annum per 1,000 of the population since 1895. The average birth-rate, for the last five years is 39·3 *per mile* of population and the death-rate 36·4. Both rates are normal. The rate of female mortality is higher than the male, but the male birth-rate is much higher than the female.

Diseases.

Much the commonest disease is fever. A good rabi is always accompanied with an epidemic of fever. If the rains are good, fever is sure to be rampant. The epidemic of fever among the hillmen is known as "sathor," or seven day fever. In the autumn of 1906 very few houses in the hills were free from fever, and in the plains also there were many cases. Plague makes the difference between a bad and a good fever year. The presence of plague means that the mortality figures will not fall below the maximum fever figures, and if fever also is bad will much exceed them. Small-pox occasionally breaks out in the bazaars, but since the introduction of vaccination is much less common. Goitre is not unknown in the hills. Pneumonia, dysentery and diarrhœa are fairly prevalent in the plains in the cold weather.

CHAP. I. C. Population. Birth custom.

When a child is born, the Mullán is sent for and calls the *báng* or *azán* in the child's ear.

If the child is a boy, eight annas or one rupee and some cloth is given to the Mullán, and there is much rejoicing. If the child is a girl, some grain only is given. A small portion of *gur* and *ajwáin* (*Apium-involucrotum*) are mixed together, and a few grains are placed in the child's mouth. This is done daily for three days. On the fourth day the female relatives are all collected, and the child's paternal aunt places the child on its mother's breast, from which time it is suckled by its mother. A present is then made to the aunt. On the seventh day the *nái* (barber) is sent for, and the child's head is shaved. The *nái* gets a money present, and a small money present is also made to other *kamíns*. On the seventh day the mother and child are bathed, the head of the family names the child, and food and sweets are distributed to the relations. This is all done when the child is a boy; when it is a girl much less fuss is made.

The boys are circumcised up to the age of eight years by the *nái*. *Gur* and sweets are distributed, and the *nái* is paid from one rupee to ten for performing the operation.

Among the Sikhs who wear the hair long (*kesádhári*) the following ceremonies are observed at the time of naming the child. A month after birth the child is taken to the *dharmsála*. The Granth Sáhib is opened at random, and the first letter of the first verse on the page is the first letter of the child's name. Among Mona Hindús a similar custom is followed, or the name may be given by some member of the family.

Sex.

The number of males in every 10,000 of both sexes is shown below:—

Census.		In villages.	In towns.	Total.
	1868	...	...	...
	1881	5,318	6,835	5,497
	1891	5,247	6,914	5,483
	1901	5,138	6,570	5,368
Census of 1901 ...	Hindús	5,449	6,308	5,954
	Sikhs	5,372	7,169	5,809
	Muhammadans ...	5,109	6,484	5,232

These figures show that the number of females is increasing relatively to the number of males. The disparity between the sexes among the agricultural population is not more marked than in the rest of the Province. It is to be expected that the urban population, which is confined to Ráwalpindi and Murree, both cantonments, should show a preponderance of males.

The following table shows the number of females to every 1,000 males under five years of age, as returned in the census of 1901 :— CHAP. I. C. Population. Sex.

Year of life.	All religions.	Hindús.	Sikhs.	Muhammadans.
Under 1 year	958	960	813	963
1 and under 2 years	965	938	929	956
2 " " 3 "	956	917	877	962
3 " " 4 "	987	1,038	934	986
4 " " 5 "	908	905	759	913
Total under 5 "	969	939	872	978

The proportion of girl children to boys is high among Hindús and Muhammadans, but low among Sikhs who treat girl children with less care than boys.

Marriage. Restrictions on marriage.

So far from marriages between near relations being forbidden, it is usual to arrange a marriage with a near relation. The commonest case is the marriage of cousins. If a cousin is not available a bride is usually sought within the tribe. Occasionally a marriage is arranged with a woman from a tribe of equal or only slighter lower degree. Marriages with women of low caste are, especially in the hills, not uncommon, but are looked on with disfavour. Among the Sahu or noble tribes it is an almost binding obligation that the senior wife should also be Sahu. Sayyads can marry from almost every tribe except Ghakkars. The only general and absolute rule is that the husband's family must be at least equal in social estimation to that of the wife.

Betrothal.

The customs connected with betrothal are as follows :—

When the parents of the children arrange a marriage, they appoint a date upon which the boy's father provides some 10 or 12 sérs of *gur*, Rs. 4 or 5 in cash, clothes for the girl and jewels according to their station, and a clove. These things are placed on the head of the *nái* or barber, and sent to the girl's house.

The girl's father or guardian takes the *gur* inside, and the *nái* takes care of the rest. That night the girl's father gives a feast to the boy's father and others, and next morning the girl's relations assemble and feast the guests, and place the *gur* sent by the boy's father before all the relatives of the girl. The other things,—the jewels, clothes, clove, &c.,—taken charge of by the *nái*, are placed in a *thál* or open vessel, and set before te girl's relatives.

The *mullán* then comes forward, and the promise of marriage or " Shara jawab " is repeated three times by the girl and the boy themselves if they are of full age, by their guardians for them if they are not.

CHAP. I, C.
Population.
Betrothal.

The *gur* is then divided amongst all those present, and the other articles are taken by the girl's relatives. One rupee is given to the *mullán* and annas six to the *nái* or barber, and the boy's father and relatives take leave, receiving from the girl's relatives one rupee in cash, a *pagri* and some two sérs of *gur*. The clove brought by them and colored with *kesar* or saffron is at the same time returned by the girl's father to the boy's father. Occasionally, too, *pagrís* are given to some of those accompanying the boy's father. The girl's father then feeds his own relatives and dismisses them. The girl's female relatives sing songs of rejoicing at this time.

Marriage.

Betrothal in this district usually takes place, for the boy between the ages of 5 and 15, and for the girl before her twelfth year.

After an interval, the boy's friends proceed to discuss a date for the marriage with the girl's friends and similar ceremonies and courtesies are gone through again; colored threads are also presented; and when the date has been fixed, a knot is tied on this thread for each day remaining, sometimes by the *mullán*, sometimes by the Brahman, although the parties are Musalmáns; this is known as *gandh*.

After fixing the date, the parents of both parties despatch small presents of *gur*, &c., to their more distant relatives and friends by the hands of the *nái*, who receives small presents of cash, two annas or four annas, or of grain. Fifteen days before the wedding, the women of the family come together and sing, which they do nightly thereafter until the wedding day. Seven days, or in some cases four days before the wedding *mayán*, a sort of biscuit, made of *ata* and *gur* cooked in oil, is distributed; twenty-five of these are placed before the bride, and the rest are kept in reserve. When the bridegroom comes, two of these are given to each of the special intimates, and the rest are then divided amongst the guests. This custom is not universal. At the same time that these cakes are prepared, the *gána* is tied round the bridegroom's right wrist. This is a black string of wool with an iron ring with some *sarson*, &c., tied on to it. This is known as *bindá*. The custom of *binda* follows that of *mayán*.

The day before the wedding, or, if the bridegroom lives near the bride, on the morning of the wedding, the women of the bridegroom's family go with him about 4 P.M. to fill their *gharah* with water, taking musicians with them singing as they go; they fill one *gharah* and a small vessel with water and return to the house, and placing the bridegroom on the *chauki*, or low stool, they mix oil, flour, turmeric (*haldi*), &c., with curds, and therewith they wash the boy's head. Each woman dips her finger five times in the mixture and places it on the lad's head; then the *nái* shampoos and bathes him, and the women throw small sums into the vessel

for the *nái* and musicians, who divide it. After bathing him, the *nái* places water in the bridegroom's hand, who scatters it to the four cardinal points, said to be indicative of a desire to include all in happiness similar to his own; then some embers are placed in a small earthenware cup, and some *harmal* seeds are thrown into them, which emit an odour: this is placed before the boy to avert the evil eye; the boy then kicks this over and gets up from his chair, and, putting on a black blanket, goes and sits with his friends and eats confectionery with them. Then the women of the family color the bride and bridegroom's feet and hands with cochineal (*mehndi*), and their own hands also. The order of these ceremonies is sometimes altered. The bridegroom's friends assemble a day or two before the wedding and are fed by his family; then, when the bridegroom is ready to start for the bride's house, a wreath is tied round his forehead, of tinsel and flowers, and he is dressed in his best, and the *nái* gets his old clothes. The bridegroom is then addressed as Mahárája, and is made much of, and clothes are distributed also to near relatives, who then wear them, and these in their turn make presents to the bridegroom and his family in cash of sums corresponding to their station in life, and small money presents are made to the *kamíns.*

The bridegroom then mounts his horse, and salutes his near female relatives, each of whom gives him some coin. His sister offers grain to his horse, and holds his halter, and he makes her a present. The marriage procession then starts for the bride's house. Any shrine passed on the way is saluted and an offering made.

The girl is treated much in the same way up to the day of the wedding, and is then placed in retirement (*parda*), and other girls of her own age assemble round her. When the bridegroom's procession arrives, *nezabázi*, &c., goes on in front of the house. Then the women of the bride's house turn out and throw Persian lilac seeds at the bridegroom's party and abuse them; the bridegroom's party then presents *gur* to them, and the whole party adjourn to some large building arranged for the purpose, and the *nái* of the bride's family gives a cup of milk to the bridegroom, who gives him two annas. Then the potter brings some *sharbat* and gives it to the bridegroom and guests, and he gets two annas. One rupee is sent to the girl's house; and then the bride's family feast the guests who accompany the bridegroom, then the guests of their own connexion, and then *fakírs*, beggars, &c.

At night the women take the bridegroom to a place by himself, where lights are set out, and sing obscene songs. Later the women take the boy out with them and perambulate the village singing similar songs. In the morning the boy is brought to the house of the girl's father, and the carpenter knocks in five pegs into the door, which the bridegroom takes out, giving the *tarkhán*

CHAP. I. C. Population. a small money present of from one to six annas. Then the bride and bridegroom are bathed and dressed.

Marriage. After that, the friends of both parties assemble in a suitable place, and the marriage contract, or *nikáh* is performed by the *mullán*. The girl's friends answer for her, and the bridegroom answers for himself, and the ceremony is witnessed by four witnesses and the dower fixed. The *mullán* gets from one rupee four annas to five rupees for performing the ceremony. Then the bridegroom is taken into the bride's house, where he seats the bride on a bed. Presents are made to the bride at this time, and presents are given by the bridegroom to the *kamíns* of the bride's house, and the bride is then placed in a litter and sent off with her husband.

When the bride reaches her husband's door, the litter is placed on the ground in front of it, and the females of the family abuse her. The bridegroom's mother, after moving the water, she has brought, round the bride's head three times, tries to drink it, which the bridegroom does not permit her to do; the litter is then taken into the house, and the *nái*'s wife remains with the girl.

In the morning the *kahárs* and *kamíns*, who come for the litter, get presents and are dismissed. In the afternoon the threads on the boy's and girl's wrists are removed, each by the other.

Hindu customs. The Hindú marriage customs are not dissimilar. The essential part of the ceremony, among Muhammadans the *nikah*, is with the Hindús the *kaniádán* or transfer of the girl to the boy's family: the girl's father puts her hand into the boy's, their clothes are tied together and they walk seven times round the sacred fire (*hom*), while the Brahmans recite *slohas* from the Shástrás. The whole ceremony of circumambulating the holy fire is called *láwan phera*. The *barát* stays longer than among Muhammadans. The usual time is four nights. An attempt recently made by the Deputy Commissioner to reduce the time to two nights came to nothing.

Age. There is no fixed age for marriage. Among Muhammadans the contracting parties are usually adults and the wife goes to live with her husband at once. With the Hindús the marriage age is about fourteen for girls and twenty for men. Child marriage is fashionable only with those who cling to old custom and the Shástrás. Among Hindús the wife enters the caste and got of her husband on marriage. Apparently Muhammadan women always belong to the tribe in which they were born. Statistics do not show any great difference between Hindús and Muhammadans in the proportion of widows at various ages. The custom, however, is that among Hindús and the principal Muhammadan families' widow

CHAP. I, C. Population.

re-marriage is not practised. In ordinary zamíndár families the practice is not discountenanced. No stigma attaches to marriage with a widow, and a woman, if not too old, will always re-marry.

Polygamy.

Among Muhammadans polygamy is a mere matter of expense. Women do not work in the fields, and an additional wife is an additional expense. In Murree the rule is for a zamindar to have more than one wife. The limit is that fixed by Muhammadan law. In Kahuta the majority cannot afford more than one wife, but all the better to do have several. In the rest of the district the rule is much the same. The small land-holder has one wife, his more prosperous brother two or more. Hindús are as a rule monogamous. Bhabrás always are so. Polyandry is unknown.

Bride price.

In the hills alone is any price paid for the wife. The Dhunds of the lower Murree hills deny the custom of "Ram", as it is called, but Dhunds, Sattis, Kethwals, Dhanials and Jaskams, undoubtedly practise it. A frequent source of dispute is the failure to return purchase money paid at betrothal in case the marriage negotiations are broken off. Civil Courts are not resorted to in these cases, and attempts were made unsuccessfully at settlement to have a provision inserted in the village administration papers for the satisfaction of the disappointed suitor.

Language.

The universal language of the district is Punjabi. Urdu is spoken by the better-educated classes, and by camp-followers, servants and other strangers, immigrants from Hindustan. The form of Punjabi is that called Lahnda by Dr. Grierson who writes, "Although influenced by the dominant Punjabi spoken in the province, it is much more nearly connected withthe Sindhi and Kashmiri than with that language. So much is this the case that difficult words in Kashmiri chronicles have actually been explained by a reference to Mr. O'Brien's Multani Glossary."

The language spoken differs from tract to tract within the district. Two dialects are well distinguished. Pothwari is the dialect spoken in Gujar Khan and the plain portions of the Rawalpindi and Kahuta Tahsils. This is the language of much of Jhelum and Gujrat Districts. The dialect spoken in the Murree hills is very different from Pothwari. Dr. Grierson calls it Chhibbali and identifies it with the dialect spoken in the south-western hills of Kashmir. Besides these dialects there are various sub-dialects.

For instance that spoken in the valley of the Soan is called Sawain, and the speech of Khatris throughout the district is quite distinct from the zamindari tongue.

But in spite of these differences every resident of the district is intelligible to every other. All dialects of the district have the common characteristics of pronominal suffixes, a strong passiveform in *i*, and a future in *s*, and all merge gradually the one into the other.

CHAP. I, C.
Population.
Tribes and castes.

The principal tribes of the district with the number of tribesmen are given in the following statement:—

Tribe or Caste.	Number.	Tribe or Caste.	Number.
Awan	38,763	Moghal	13,403
Brahman	14,033	Pathan	7,305
Dhund	23,462	Koreshi	8,527
Gakhar	13,328	Rajput	100,991
Gujar	25,953	Satti	17,423
Janjua	7,557	Sayyad	12,508
Jat	34,556	Dhanial	...
Khattar	1,014	Kethwal	...
Khatri	27,799	Jaskam	...
Malliar	17,048		

The figures are taken from the Census Tables of 1901, and are not very accurate. The Rajput figures are swollen by the inclusion of many Gakkhars and Janjuas (3,195) all the Kethwals, and Dhanials. The Jaskams are nowhere enumerated.

"Sahu".

Among the Muhammadan tribes the chief distinction is the social distinction between "Sahu" and zamindar.

The use of the term Sahu is entirely dependent on the tribe; the poorest coolie belonging to certain tribes would be recognized as a Sahu; the richest zamindar not belonging to one of these could not call himself so, and would not attempt to. The origin of the term is not very clear. It has been explained as derived from the world "Asl," and that "Sahu" means a men of an *asl khandan*, but the derivation is given for what it is worth only. The term is much more commonly used in the eastern than in the western portions of the district. The Gakkhars and Janjuás are pre-eminently Sahu, and all the tribes claiming to be converted Rajputs call themselves so.

Dhúnds, Dhaniáls, Kethwáls and Sattís, all hill tribes, also claim to be Sahús.

The zamindar almost always cultivates his own land; the Sahu often does not, never if he can help it, but the great majority are now obliged to do so by their circumstances. The term means, as nearly as possible, "of gentle blood."

The hill Tribes as distinguished from those of the plains.

No exhaustive enquiry into the principles of tribal organization within the district has ever been made. But it is probable that besides the distinction between Sahu and zamindar there is also a distinction based on the principles of tribal organization between the southern and the northern tribes. Those of the Pothwar tract are based on agnatic relationship alone, and may have developed in course of time from the agnatic family through the agnatic clan into the agnatic tribe. Among these tribes family pride is considered a virtue, and certain families are looked up to with great respect.

CHAP. I. C. Population. The hill Tribes as distinguished from those of the plains.

Among all the hill tribes, however, paternity is not the only fact worth consideration. The mother's tribal origin and her rights are kept clearly in mind. The family bulks much less largely. Family pride is much weaker and more uncommon. Every family is split with feuds which generally have their orgin in the domestic disputes to which polygamy gives rise. All the hillmen are democratic and no respect is paid to family pretensions. It is only since last settlement that the custom of dividing the inheritance according to the number of mothers and not the number of sons has been abandoned in favour of the custom of division *per capita*, universal in agnatic tribes. Widows are allowed to succeed with sons, and the rights of daughters and mothers are fuller than in the Pothwar. However these tribes may have been organized, it is quite obvious that they did not grow out of agnatic families through agnatic clans, and although in general agnatic relationship is the primary consideration, the tribes are not purely agnatic tribes. The tribes of the intermediate tract, the Kharora and Kahru Ilakas, though ruled by customs of agnatic relationship, have either borrowed or themselves inherited customs relating to the position of women similar to, though not so extensive, as those of the hill tribes, and thus occupy a position intermediate between the Murree and the Pothwar groups.

Notes on the tribes in detail follow.

Sayyads.

Among Muhammadans Sayyads are looked up to by all from religious motives. Their social position is high though not higher than that of the Gakkhars and perhaps the Janjuas. Yet the Gakkhars and Janjuas are always ready to give their daughters in marriage to a Sayyad.

In character and position they differ little from the Sayyads of other districts. In the hills not much respect is paid to them. Everywhere they rely more on their land and on miscellaneous income than on offerings. Many of them cultivate their own land, but they are the worst possible agriculturists. They have been recorded as owning 24 villages in Tahsil Rawalpindi, 2 in Gujar Khan, 7 in Kahuta and 3 in Murree. Most of them are in troubled circumstances. As regards tribal custom they profess to follow the same rules as Gakkhars, who admit them to a certain degree of equality.

The principal Sayyad family is that of Sang Jani, and this family is in good circumstances. The head of the family is Amir Haidar Shah, Sang Jani, Jagirdar, Zaildar and Honorary Magistrate, who succeeded his father Mahdi Shah in October 1887. The latter deserves mention as an Honorary Magistrate of Rawalpindi city and a loyal and useful native gentleman, who gave assistance to the district administration whenever opportunity offered. Pír Sadr Dín, of Ratta Hotar, is also an Honorary Magistrate and a well known Sayyad. Mohsan Ali Sháh, of Jhang-

CHAP. I, C.
Population.

Sayadán, though somewhat eccentric, is a thoroughly well disposed Sayyad gentleman who is much thought of by the people.

Sayyads.

The shareholders of the shrines of Nurpur Shahan and Shah Chiragh, Rawalpindi Tahsil, most of whom are Sayyads, own a great deal of land.

Other leading Sayyads are Lal Shah of Nurpur Shahan, Balawal Shah of Suban, Bahadur Shah of Dheri Shahan, Zaman Shah, Lambardar of Dhanna, Ahmed Shah, Dheri Shahan, in Rawalpindi Tahsil, Nur Haidar Shah, Zaildar, Tret, Karim Haidar Shah, Inamdar, Tret, and Muhammad Akbar Shah, Dohala, in Murree Tahsil, and Shahzad Shah, Inamdar, Darkhali Khurd, Ahmed Shah, Inamdar, Sayad, and Amir Ali Shah, pensioned Ressaldar, Sayad, in Gujar Khan Tahsil.

Koreshis.

The door of Sayyad descent, though not shut fast, is not easy to open, but the door of Koreshi descent seems to stand ever open, and it would appear that any man can enter who will. Mianas in particular, crowd in, chiefly in order to obtain the benefits of the Land Alienation Act. In Gujar Khan the Dulal Koreshis are neighbours of, and have much in common with, the Awans, whose own claim to Arab origin rests on as good a ground as that of the Dulals. Elsewhere, and Koreshis are scattered throughout the district, many are descendants from fakirs who, from whatever source they spring, invariably leave to their sons and relations the dignity of Koreshi descent. Not all leave claims to sanctity and the position of the tribe in the district is not high. As cultivators they rank with Sayyads. The Siham Koreshis near Rawalpindi own a good deal of land which they are dissipating fast. The majority of claimants to a Koreshi descent allege connection with this branch of the Koreshis.

The leading Koreshis in Gujar Khan Tahsil are Sardar Khan, Zaildar, Narali, Khuda Bakhsh, Subedar, Narali, Bahadur Ali Khan, Subedar and Zaildar, Pharwala Dulal, Bahadur Ali Khan, Zaildar, Kuri Dulal, Fakir Muhammad Khan, Subedar of Mandra, and Kazi Muhamed Nur of Bhatian. The heads of the Siham Koreshis in Rawalpindi are Jahandad Khan and Mian Muhammad Ji. In Murree Balawal Shah owns the whole of Anwari village; Fateh Shah and Zaman Shah of Fatot enjoy a muafi of Rs. 120; and the much respected Palasi family of Hazara, who originally came from Khushab in Shahpur District, enjoy an assignment of the whole revenue of Taraf Naral of Dharjawa, which by the new assessment amounts to Rs. 91.

Gakkhars.

By far the most interesting and socially important tribe in the district is the Gakkhars. They are essentially the aristocracy of the district. Their history, so far as it affects the general history of the district, has been given at page 38. Further information will be found in the Gazetteers of Jhelum and

Hazara Districts, in selections from the Records of the Punjab Government, new Series, No. XXIII, 1887 (Papers relating to the Gakkhar Tribe), and in Sir Lepel Griffen's Punjab Chiefs.

CHAP. I. C.

Population.

Gakkhars

The adherence by some of the Gakkhars, notably the Pharwala family, to Shia tenets has been taken by some to support their claim to be of Persian origin. On the other hand old religious customs, obviously of Hindu origin, are still observed by the Gakkhars, or were until within a very short period, such as the custom at marriage of "*Láwa-pherna* and "*Khári par baithána.*" The Kázi and the Brahman are *both* present on such occasions. Further, it is curious that their headmen call themselves "Rájás," and not by any other distinctively Musalmán title. The name Gakkhar, too, seems to partake more of a Hindu than of a Persian or Arabic form.

Their social position in the district is very high. Although the surrounding villagers still remember against them the oppressions of the Gakkhar rule and resent their present day arrogance, yet they have not forgotten that the Pharwala family once ruled over more or less of the whole tract between the Jhelum and the Indus. To no one outside their own tribe, except Sayyads, will Gakkhars give their daughters. The Admal men always endeavour to marry Gakkhar girls. The other branches are not so particular and will occasionally intermarry with other tribes who are Sahus. The daughters are kept in great seclusion, and the re-marriage of widows is not permitted. The Kahuta families are held in the highest estimation. Those of Rawalpindi rank somewhat higher in the social scale than their fellows in Gujar Khan, but not quite so high as those of Kahuta. The Admal Gakkhars of Pharwala are the pinnacle of the social pyramid.

As compared with the Gakkhars of Hazara and Jhelum those of Rawalpindi District are generally considered the senior and mos important branch of the tribe. They hold Pharwala, restored to them at the first Regular Settlement, and the Admals, in which family the headship descended, are most closely connected with this district. But the tribe has fallen on evil times. They consider that they have been much less liberally treated than their brethren in Hazára and Jhelum, though in fact their own indolence and incompetence are the causes of their present depression. The horn of the Khánpur family is at present exalted, but the glamour of old Pharwala days still clings to the Kahuta Gakkhars and lends them a certain pre-eminence.

There are six well known and important branches of the tribe n the district :—

1. *Admál*—descended from Sultán Adam.

There are six chief families of this branch, *i.e.*, the Admáls of the villages of Pharwála, of Mándla, Chaneri Kaniat, Maniánda and Nára.

CHAP. I. C.
Population.
Gakkhars.

2. *Sarangál*—descended from Sultán Sárang.

The Saidpur family are the only well known representatives of this branch in this district. The chief families of this branch are to be found in Khánpur, in the Hazára District.

3. *Firozal*—said to be descended from Malik Fíroz.

The chief family of this branch is to be found in Sang, Tahsíl Gujar Khan.

4. *Bugiál*—said to be descended from Malik Búgas.

The only family of this branch in Ráwalpindi resides in Shakarparián.

5. *Hathial*—said to be descended from Sultán Háthi, but there are no well known chief men of this family anywhere.

6. *Sikandrál*—said to be descended from Malik Sikandar.

There are very few of this branch in this district, and no well known families at all; they are mostly to be found in the Jhelum District.

In addition to these branches, the families of Gakkhars mentioned above recognize Pahariál, Johdiál and Mangrál as true Gakkhars; but they have no well known men among them, nor do they appear ever to have had.

These nine branches are generally recognized as true Gakkhars; others as Kainswál, Farmsiál, Sunál, Kul-Chandrál and Jandiál, call themselves Gakkhars, but are not admitted to be such by the chiefs of the Admáls, Sikandráls and other unquestioned branches, nor do they appear at all able to give proof of their claims on this point, nor are there any very prominent families among them.

The head of all the Gakkhars in the district in Rája Karmdád Khán, Admál of Pharwála. The Admáls of Pharwála are in very much reduced circumstances. At the first settlement they were restored to the possession of their old ruined fort of Pharwála, with some 50 acres of poor cultivated land. Even here other owners were associated with them and the Gakkhars did not till 1906 hold the lambardári even of Pharwála and have no land at all in any other village. They now enjoy some cash grants, which, in the aggregate, amount to a considerable sum. From time to time they have been given land from Government forests, but they decline to leave Pharwála and make over the land to tenants. The family is now, in spite of the efforts of many officers, in poor circumstances. They are absolutely the most indolent family in the district. But they are socially the head of all the Ghakkar tribe and in strictness they alone are entiled to the title of Rája, other Gakkhars being addressed as Mirza. The grant as originally made to them was a fourth of the revenue of 34 villages of Kahuta Tahsil and amounted to Rs. 1,500. At re-assessment during Revised Settlement it rose to Rs. 2,155. On the death in 1904 of one of the assignees without male issue his share, which amounted to Rs. 127 and was enjoyed from the revenue of three villages, was resumed under the orders of the Punjab Government. The present grant consists of a *chaharam* allowance in 31 villages, and as a result of re-assessment amounts to Rs. 2,532. The owners of these villages, Dhanials and Jaskams

bitterly resent the form of the grant, and the "chaharam" is paid from the tahsil to prevent contact between the Gakkhars and these tribes.

Rája Karmdád Khán exercises second class criminal and civil powers in Kahuta Tahsil, and is a Sub-Registrar. He enjoys a life pension of Rs. 800 per annum in addition to a revenue assignment of one-fourth of the land revenue of seven villages near Kahuta amounting to Rs. 744 per annum. He has also a grant on the Jhelum Canal. His eldest son, Sultan Ali Khan, is a Jemadar in a Native Cavalry Regiment. Rája Bágh Bahár, son of Rája Sharf Khan, Admál of Pharwála, is a Settlement Naib Tahsildar. He enjoys a mutiny pension of Rs. 60 per annum for life and a grant of Rs. 162 per annum in the shape of a *chaharami* allowance, or one-fourth of the revenue of two villages in Kahuta.

Mirza Muhammed Akbar of Kaniat and Dilawar Khan, grandson of Mirza Hashmat Ali of Nara are other notable Admál Gakkhars. The former has recently been made Zaildar. His brother, Muhammad Banáres Khan, who was of some note and a Deputy Inspector of Police, died without issue.

Hashmat Ali Khan was in bearing, appearance and manner a very fine specimen of a Gakkhar gentleman. His reputation, however, suffered from the suspicion under which he laboured of being connected with the "Háfiz's swindle" described on page 84. His grandson, Dilawar Khan, has been made inamdar, and enjoys a cash allowance of Rs. 100 per annum for life.

Sultan Khan of Channi was another man of mark. He died in January 1889, and was succeeded by his son Allahdad Khan who enjoys a life pension of Rs. 100 per annum.

The Mándla family was once of great importance, but Nádar Khan, the then chief of this branch, joined in the outbreak in favour of Peshawra Singh in 1853, and ruined the prospects of his family thereby. There is now no actual chief of this family.

The Sarangál Gakkhars are not so powerful in this district as in Hazara, and they rank, though very high, below the Admáls. The only important Sarangál family in Ráwalpindi is that of Saidpur, a very old and much respected branch of the Gakkhar tribe. They are descendants of Sultán Sarang, the Gakkhar king, whose tomb is at Rawat, and are of the blood royal in their tribe. Shahwáli Khan, who was its chief, was a very well known man. He was loyal to the British in troubled times, but was generally reputed to be the worst tempered and most quarrelsome man in the district. He was succeeded by his son Ali Akbar Khan, who has recently been made Zaildar, and also enjoys a perpetual jagir of Rs. 300 per annum, the revenue of a whole village (Chak Mamuri) in Ráwalpindi Tahsil being assigned to him.

CHAP. I. C.
Population.
Gakkhars.

The Sarangáls call themselves by the title of Rája, but it is not generally admitted to them. Mirza is the title used in their "sanads."

The chief Firozal family is that of Sáng. They are not in possession of any muafis or jagirs, but have good estates and are better off than most of the Gakkhars of high family. They rank next to Sárangáls. Their chief man is Ali Akbar Khan, son of Buland Khan. He has recently been made Zaildar, 1st grade, and is a man of some importance. Many of this family, which is a very large one, are in Government service in various capacities, but chiefly in the army.

The Bugiál come next. Their present head is Ali Madat Khan, *alias* Sharf Khan, of Shakarparian, a pensioned Subedar-Major. The Shakarparian family has many members in civil employment.

The Hathiál, Sikandrál, Pahariál and Johdiál Gakkhars, though recognized as true Gakkhars, have no very prominent men among them, and are of much less importance than the branches mentioned above.

Of those not recognized by the Admáls and Sarangáls as true Gakkhars, Fazldád Khan of Bishendot in Kahuta Tahsíl, who called himself a Farmsiál, was a man of much force of character and influence. He died in 1904, and was succeeded by his son Muhammad Khan who has recently been made a Zaildar.

As agriculturists, Gakkhars rank at the bottom of the scale in company with Sayyads, and are generally in debt. The best agriculturists are the Ferozal Gakkhars of Sang in Gujar Khan Tahsil. Except in Ráwalpindi Tahsil they take to military service freely and make first rate soldiers, especially in the cavalry. Generally they are vain, lazy, extremely proud of their ancestry and desperately jealous of one another. The glamour of their past history, their present misfortunes and their undoubted physical courage entitle them to respect. Crime is not rife among them, but when a Gakkhar does take to crime he takes the lead and becomes a dangerous criminal.

The Janjuas rank next to the Gakkhars in the social scale. They are practically confined to Kahuta Tahsil, where they are the principal tribe, not so much in numbers and ownership, as in importance. There are several subdivisions, of which the most important are Dulal and Garhwal. The Dulal Janjuas hold Kahuta itself and a few villages round about, but Garhwals are the most important section. Their headquarters are at Mator, and the tribal shrine to Pir Kalu Khan is on the adjoining Dodili hill. They own the greater part of the Kahru Circle, which takes its name from the name of the clan, and is sometimes written Karhwal. They describe themselves as owning 52 villages in the Karhu Ilaka, but this number includes "dhoks." In reality the Janjuas are recorded as owning 34 villages in Kahuta Tahsil.

CHAP. I, C.
Population.
Janjuas.

The principal Janjua settlements are in Jhelum, and the Gazetteer of that district gives an account of their origin and history. In this district they regard themselves as the highest of the Rájpúts and certainly have no affinities with the Awans. They would scorn the suggestion that "Janjuas are the descendants of the aristocracy among the Awans, just as Rájpúts are the aristocracy of the Jats." Their traditions recall a time when they held the whole of the Pothwar, from which the Gakkhars dispossessed them. The soldierly tradition remains, and they do a great deal of military service. Many have attained high rank, and native officers of all grades abound among them. In social position they rank somewhat lower than the Janjuas of the Salt Range. In character they are a fine self-respecting sturdy race much superior to the ordinary Rajput. Physically they are well developed with a certain fineness which distinguishes them from Awans and other zamindars. They are far from prosperous, and even in their richest villages are largely dependent on military service. The principal man among the Dulals is Allahditta Khan, Zaildar of Kahuta, a man of some influence. The leaders of the Garhwals are more prominent and men of more force of character. Burhan Ali and Ali Mardan Khan, of Mator, are both Zaildars, and possess a good deal of influence. The list of pensioned native officers of all ranks is very long, but the three men named above are, apart from Government recognition, the leading men of the tribe.

Miscellaneous Rájpúts.

A large number of tribes in the district claim to be Rájpúts. Attached to the tribes and castes Statement (No. 15 in Volume B) is a list of the Rájpút clans with their numerical strengths. The list is not very satisfactory. It includes Kethwals and Dhanials but not Dhunds, Sattis or Jaskams, though all claim to be Rájpúts. In fact the distinction between Rájpút and Jat is not clearly understood here, if indeed it is understood anywhere. The popular distinction is that between Sahu and zamindar, and any clan which had attained to Sahu status would call itself Rájpút irrespective of historical justification. It is in this sense that their claim to be Rájpúts is generally acknowledged.

In Gujar Khan and Kahuta the Rájpút tribes are in general a valuable element of the population with less pride than the Gakkhars and more dignity than the Gujars and the Jats. They make the best soldiers of their class. They do not care for daily labour, but are often hardworking and good cultivators, and with the help of the military service, which is universal among them, are the most prosperous class in the neighbourhood.

In Ráwalpindi Tahsil the principal Rájpút families are those of Dhanial and Ranial, both of whom live in the Kharora Circle, near Ráwalpindi. They are men of good family and originally of considerable property, but extravagance and litigation have now reduced the Ranial family to poor circumstances. The rest

CHAP. I. C. Population. Miscellaneous Rájpúts.

of the Rájpúts are scattered over the tahsil. Generally speaking, they are less industrious than other tribes. The Hun section is perhaps the laziest and most criminal.

The Budháls and Bhakráls are two large tribes chiefly found in Gujar Khan and Kahuta. They do not, in appearance, in moral qualities or otherwise differ from the mass of agriculturists who cultivate the Pothwár plain. The claim of the Budháls to descent from the Prophet's son-in-law is utterly unfounded. They and the Bhakráls most probably came across the Jhelum from Jammu territory into this district. They have no very certain traditions as to their origin. The marriage of widows is looked upon with some disfavor among them.

None of the Rájpúts have an assured position independent of Government recognition, whether as zaildar, inamdars or as officers in the Native Army. Chaudhri Waris Khan, Zaildar of Ráwalpindi, was recently distinguished by the conferment of the title of Khan Sahib. Nawazish Ali, Takhtpari, Rája Sher Jang Khan, Traya, Allah Dad Khan, Jatal, Fazal Khan, Kotha Kalan, in Ráwalpindi Tahsil, Jahan Khan, Devi, Faujdar Khan, Ukahon, in Gujar Khan Tahsil, have recently been appointed Zaildars in recognition of their prominent position among the Rájpúts, but in none of the Rájpút sub-tribes is there any commanding position of chieftain.

Awans.

The history of the Awan tribe is given in the Gazetteers of Shahpur and Jhelum Districts, and in Griffin's Punjab Chiefs. Although Awans are in this district both numerically and administratively important, there is no Awankari or purely Awan tract such as exists in the adjoining districts of Jhelum and Attock.

They are to be found in every tahsil, scattered in all parts, but congregated in Ráwalpindi Tahsil round Golra, in Gujar Khan along the Grand Trunk Road north of Gujar Khan, and in Kahuta Tahsil on the east of the Kallar Kahuta Circle. They are a very self-contained tribe, and will not as a rule give their daughters to any but Awans. They are not Sahu and are socially much less respected than in any of the adjoining districts. They are fairly good cultivators, especially in Gujar Khan, where they also take very readily to military service. Everywhere they are quarrelsome and much addicted to violent crime. Notorious are the Golra Awans who own all the villages around Golra, a few miles west of Ráwalpindi. In the old days they levied blackmail on the road south of the Margalla pass, and were one of the most marauding tribes in the district. They are the least industrious of all the Awans. At present a punitive police post is quartered upon them, a burden which their fellow tribesmen at Banda in the south of the tahsil have also to bear.

CHAP. I, C.
Population.
Awans.

The Awans are only fairly well-to-do. Division of holdings has gone far, and especially in Gujar Khan pressure on the soil is great. In consequence there is a strong tendency to abrogate all customs which allow an owner in any way to dispose of his land. Kadir Bakhsh of Golra and Jafir Khan of Rawat are their leading men in Ráwalpindi Tahsil. Sardar Mohsan Ali Khan, of Pandar Kala in Gujar Khan, is a retired Subedar and a first grade Zaildar.

Khattars.

Khattars in the district as now constituted are numerically unimportant. They claim common origin with the Awans, but the latter repudiate the connexion. They reside only in the west of Ráwalpindi Tahsil along the Attock and Tahsil Fatehjang borders, and their villages are mostly in the Kharora Circle. Holdings are large among them. Ordinary crime has little attraction for them, but every family is torn with dissensions, and litigation never ceases. They are extravagant and embarrassed. None render any assistance to the administration. They are bad agriculturists, cultivating generally through tenants paying half *batai*, and are bad revenue payers. They own about 12 villages. They marry among themselves. Their leading men are Ghulam Khan of Usman Khattar, who is a Zaildar, Muhammad Khan of Sarai Kharbuza and Ghulam Khan of Ahl Piswal.

Gujars.

There are very few Gujars in Kahuta Tahsil and almost none in Murree, but they are very numerous elsewhere. In Gujar Khan they are found all over the tahsil, their strongest colony being in the south-west, close along the Chakwál-Mandra road. In Ráwalpindi they abound on the line of the Soan, and are found in nearly all parts of the tahsil.

Their tradition is that they migrated from Gujrat in the time of Akbar. Probably their settlement in the district dates from much before that time, and it is not unlikely that they are among the oldest inhabitants of the district. Certainly in Jhelum on the one side and Hazara on the other they are among the oldest settlers of the tribes at present inhabiting these districts. Nothing definite is known of the date of their immigration into the district, but the probabilities are against so homogeneous a race of foreigners settling down in the district within historial times of Gakkhar rule, and yet leaving no trace of the wave that brought them. Gujars are a very clannish tribe, speak a separate dialect and keep very much to themselves. Socially they do not rank high and indeed are mere peasants, without the pride of birth or dignity of bearing which mark their more blue-blooded neighbours. They own 124 villages. As cultivators they are excellent and rank among the best in the district, yet they are generally in debt and often embarrassed. Thrifty in small matters and thoughtless in large matters, they have not the same power of resistance to the money-lender and elasticity in adversity that distinguish the better tribes. Their character is only fair, and

CHAP. I, C. Population. Gujars.

they are somewhat addicted to petty crime. They are of very fair physique, and make fair soldiers, but find an increasing difficulty in getting themselves enlisted. Baz Khan, Zaildar, Raman, Tahsil Gujar Khan, is the most prominent Gujar in the district. Nadir Ali of Mankiala in Ráwalpindi Tahsil is worthy of mention. The family of Bulakhar in Tahsil Kahuta is sunk in debt, and its prestige and influence are gone.

Jats.

Only in Gujar Khan Tahsil, where they cultivate nearly a fourth of the tahsil, are the Jats of any importance or numerical strength. A few are found in Ráwalpindi; fewer still in Kahuta. In Murree they are unknown. It is not clear when they came into the district or whence. In the north-east corner of Gujar Khan Tahsil near the Kahuta border there are a few villages of genuine Sindhu Musalman Jats from Gujranwala, who came here in the early days of the Sikh rule. With that exception nothing is known of a Jat immigration. All low caste agriculturists, who cannot establish a claim to be classed as Rájpúts, but are of genuine zamindari descent, are known as Jats. Probably the bulk of people so classed are all converted Hindus, though the term Jat may include many families from other tribes, who in the course of generations have lost touch with their original connections, and have become merged in the great body of the cultivators.

Very probably the term covers a very heterogeneous body, including many immigrants from the east, aboriginal tribes or their descendants, and all of agricultural descent who have lost or failed to acquire Rajput status. A popular theory is that there is generally no difference of ancestry between the tribes classed as Jats and those classed as Rajputs. Social aspirations are indicated by strictness in the marriage of daughters; a daughter may be given in marriage to a tribe of equal or higher repute, but not to one of lower repute; disregard of this rule has degraded many families from Rájpút to Jat, as an observance of it even now raises Jats to the dignity of being called Rájpúts. This theory does not accord with the clan systems of the Jat and Rájpút tribes. It proceeds from the impossibility of discerning physically and in appearance any difference between the ordinary Rájpút and the ordinary Jat. The process of rise and fall which it describes does go on, but the assertion of a common Rájpút and Jat origin, which is the important part of the theory, does not accord with either the conditions or the traditions of the district. The theory of heterogeneity explains all the facts which are the basis of the common ancestry theory, and also covers these differences in clan organization between Rájpúts and Jats and within the Jat tribe which the other theory leaves untouched. One or two of the Jat clans present an appearance of some homogeneity, but the great majority have neither a common descent nor common traditions. Classed as Jats are Aura, Bains, Chhina,

Dhanial, Kalial, Khatrel and Sadan. No detailed investigation has ever been made into the organization of these clans in this district. The Jats are fine thrifty sturdy cultivators. After the Malliárs they are the best in the district. They are generally quiet and law-abiding, are not above daily labour, and many of them, borrowing Rájpút tribal names, enlist in the native army. They have no leaders of any note.

CHAP. I. C. Population. Jats.

Malliárs

The name "Malliár" appears rather to denote the occupation of the members than the caste to which they belong, or the tribe from which they have originally sprung. There can be no doubt that many of the Malliárs of the present day are descended from an ancestor of some other tribe, who took to market gardening as an occupation. Nothing is known about their advent into this part of the country. Malliárs are fond of calling themselves by the name of some tribe higher in the social scale than themselves, as Awán or Janjua. They are closely related to the Aráíns, Málís and Bághbáns of the Eastern Punjab. They are excellent cultivators, the best in the district, and a large proportion of the irrigated lands are in their hands either as owners or tenants. They are scattered all over the district, with the exception of the Murree hills. Ranking first as cultivators, they rank lowest in the social scale of all agricultural tribes.

They are more frequently found as tenants than owners, always tilling the best lands only. There are few purely Malliár villages. In Rawalpindi Tahsil they are often criminal. Some of the best Malliárs call themselves Janjuas and enlist in the army.

Moghals.

The true Moghals of the district are very few in number. Such as there are are descended from small Moghal settlements left by the various invading Moghal armies. It is a curious fact that it has lately become the fashion among certain tribes, even of high social rank, to call themselves Moghals. Sattís, Ghebas and others do so, and it is said that even Gakkhars have been known to, but it is very doubtful whether any true Gakkhar who could prove his descent would ever do so. The Moghals are exceedingly conceited about their origin, and with very little reason. They are not good cultivators. They are accounted of good birth, and rank with Rájpúts. In Kahuta Janhál Moghals occupy a compact little block of villages around Beor in the north of the Kahru Circle. They are quiet respectable men, who give no trouble to any one, and are in fair circumstances, but do little Government service. In Ráwalpindi Tahsil the Moghals of the large village of Moghal are in great repute as hawk trainers.

The leading Moghals are Khushal Khan and Pir Muhammad Khan of Beor in Kahuta, Khan, Zaildar, of Turkwal, and Fazl Dad Khan, Resaldar of Saral, in Gujar Khan, and Chaudhri Tora Baz Khan, Zaildar, Moghal, in Ráwalpindi Tahsil.

CHAP. I, C.
Population.
Patháns.

There are few Patháns. In all tahsils they are of little account. In Kahuta Tahsil the only exception is the owners of Ghazanabad, who are Eusafzai Patháns. The estate was granted to Ghazan Khan who did good service in connection with the Patna-Sitara plot. Ghazan Khan was succeeded by his sons Ibrahim Khan and Muhammad Khan. The rule of the family is that the eldest son gets a doubleshare. Ibrahim Khan, who is a Zaildar, has recently divided all his property among his five sons, the eldest getting a third. In Gujar Khan Patháns claim mystical descent from the Mohmands, but are now in habits and language little to be distinguished from Jats. The Kazi family of Kazrani, however, are included under Patháns. Their chief men are Kazi Bagh Ali, Zaildar and Sub-Registrar, and Kazi Gauhar Ali, retired Tahsildar.

Dhúnds.

The most prominent of all the tribes of the Murree hills is the Dhúnds. They occupy the whole of the western portion of the tahsil and spread down into Ráwalpindi Tahsil. They also hold a portion of Hazara District. Whence they came and what their origin are questions involved in obscurity.

It is usual to say that they are of Hindu origin, but this is merely a hasty deduction from peculiarities in their customs which are capable of many other explanations. If it means that they are of origin similar to that of tribes in the plains who undoubtedly were originally Hindus, the explanation has nothing to support it. But if it means that their history as a tribe dates from times when Muhammadanism was unknown in India it is more entitled to credence. In any case there is little trace of Hinduism or Hindu influences. The theory that they are immigrants from Hazára does not go far to explain their origin. The tribal tradition is that they are descended from Abbás, the paternal uncle of the Prophet. They also claim to be Rájpúts. An account of the tribe is given at page 593 of Griffin's Punjab Chiefs. It is extremely improbable that they ever inhabited any portion of the Punjab plains. The peculiarities of their customs are not to be explained as late excrescences on the general body of Punjab tribal custom. They are rather survivals from an earlier state of society. The body of custom appears to have grown more and more into conformity with the customs of their neighbours to the south, but is still far from complete similarity. The original tribal customs from which it grew were undoubtedly widely different from anything known to the neighbouring Punjab peoples, and were based on a totally different conception of clan and tribal relations. Accordingly their origin should be looked for not in the Punjab plains but either in the Murree and Hazára hills or in some tract more remote from the Punjab.

The Dhúnds are of fair complexion though not of very fine physique, but like all highlanders can undergo much fatigue in their own hills. They have much pride of race, but are

rather squalid in appearance; the rank and file are poor, holding little land, and depending much on their flocks and herds for a livelihood. All the hill tribes have a great dislike to leaving their hills even for a short time, especially in the hot weather, and they are unable to sustain the heat of the plains at such seasons. Almost all have a winter and a summer residence, going up with their cattle as high as they can manage during the hot months, returning to the valleys for the cold weather. They stand high on the social scale, being classed as Sahús. The Dhúnds do not bear the best character among the hill tribes, and are generally accounted rather deceitful and untrustworthy.

They are described as follows by the Settlement Officer :—

The Dhúnds are the most numerous, as they are the most prominent tribe in the tahsíl. Before the invasion of the hills by Sirdár Hari Singh in the beginning of the last century, the Dhúnds were happy in having no history and no masters. Since their conquest by the Sikhs, their history has been turbulent and troubled. All hill men are democratic, but the Dhúnds are more than democratic. Democracy accepts the law of the majority, but the Dhúnd is a law to himself and submits himself to no man. They fought against the Sikhs, they rebelled against the English in the darkest days of the mutiny and now carry on the traditions of the past by struggling against Forest Rules and Cantonment Regulations. The Dhúnd has many manly qualities, but at heart he is still a rebel. Of late years the Dhúnds round Murree have acquired vices from the Cantonments which are difficult to forgive and the knowledge of which goes far to alienate sympathy. With few exceptions the Dhúnd villages are very prosperous. They all lie near the Kashmir road and around Murree Station. They sell every kind of agricultural produce in the bazárs and on the road; they keep carts, bullocks and riding ponies for hire; they do labour on the road and in the station: many of them are small contractors and many more take domestic service; khánsámahs and khidmatgárs swarm in the hill villages. Of recent years attempts have been made to make soldiers of them and they have been recruited for the new Punjábi regiments. So far the attempt has not been a success, recruits go readily, but come back more readily than they go. It is not very likely that the Dhúnds will ever be of much use as soldiers. There is little professional crime or litigation among them, but they are very quarrelsome. Every family is split with feuds which generally have their origin in the domestic disputes to which polygamy gives rise.

They own 60 villagesin Murree and four villages in Ráwalpindi Tahsil. The only family that is prominent is that of Phulgráon, Tahsíl Ráwalpindi. Rája Mansabdár Khán, formerly a Tahsíldár and Sub-Registrar, is still remembered. He was succeeded by Sikandar Khán, now a Náib-Tahsíldár. But not much respect is

CHAP. I, C.
Population.
Dhúnds.

paid by one Dhúnd to another's claims to pre-eminence, and prominence does not run by families. The Phulgráon family has great possessions. Otherwise there is no one of much prominence. Samandar Khán of Sehanna and Potha is a very old man, himself respectable but burdened with descendants who bring his name into ill-fame. The Dewal family, of which the head is Nazr Muhammad, Zaildár, numbers among its members a jamádar, an overseer in the Trigonometrical Survey, and several lambardárs, and is of some little prominence. Dadan Khán, the father of the present zaildár, was a respectable lambardár with a good deal of influence. He was murdered in 1894. The Dhúnds of the lower hills have few comings and goings with the Dhúnds round about Murree. Their more prominent men are Saidan Khán of Chattar and Panda Khán of Sila.

Right in the middle of the Dhanial iláka a family of Dhúnd Ghials inhabit the village of Karor. Their headmen are Kaim Khán, Zaildár, Zamán Ali Khán, and Fateh Khán, retired pensioner.

Sattís.

Next to the Dhúnds the Sattís are the largest and most important of the hill tribes. They inhabit the whole of the Kotli spur in Murree Tahsíl, (*i.e*, practically the whole of the tahsíl from the Patiála spur to the Jhelum), and they divide the whole of the mountainous portion of Kahuta Tahsíl with the Jaskams. They are probably of the same descent as the Dhúnds who pretend to look down on them, and in physique and general characteristics are similar to them, but of a distinctly superior class. The Dhúnd's theory of the origin of the Sattís is that their progenitor was the illegitimate son of one Kalu Rái, an ancestor of the Dhúnds, by a slave girl, that he was born at the foot of the Narrar mountain and abandoned by his parents who had lost their way, and was found three days afterwards by a fabulous Brahman who called him *sat* (or penance), whence Sattí.

The Sattís absolutely reject this genealogy. They are generally accepted as Sahus, and are of the same social status as the other Rájpút hill tribes.

In character they are much less ill-conditioned than the Dhúnds, and are of a better physique.

They have all the manly qualities of hill men, and in addition are less troublesome than their neighbours to the west. Their land is less productive, miscellaneous sources of income smaller, and prosperity much less than in the villages around Murree. Sattís are essentially soldiers. They served in the Sikh armies and now swarm in the Punjab and frontier regiments. They take to any military service and the new mule corps are full of them. Holdings among them are very small and without military service they could not live.

CHAP. I, C.

Population.

Sattís.

Tribal feeling is much stronger among them than among the Dhúnds. They hold together and look up to their headmen more.

The two principal families are those of Chujjana in Murree and Kamra in Kahuta.

Bura Khan of Chujjana was held to have shewn loyalty with his tribe in 1887, when the Dhúnds attacked Murree. He was succeeded by his son Painda Khan, who was for some time a Forest Ranger, and is now Zaildar. His eldest son is now a Subedar in the Native Army.

The heads of the Kamra family are Kurban Ali Khan, grandson of Zabardast Khan and Subedar-Major in the 62nd Punjabis, and Jahandad Khan, his uncle. Both are Zaildars. Sattis own 17 villages in Murree and 30 in Kahuta Tahsil.

Kethwals.

The Kethwals are wedged in between the Dhúnds on the west and the Sattis on the east. They own only three villages, of which one, Charihan, is the largest village in Murree Tahsil, and the other two are small hamlets, separated off from Charihan at last Settlement. In character they much resemble the Dhúnds, but they are not so close to cantonments, and their qualities are hardly so pronounced. They took no part in the mutiny, but they are a turbulent tribe and of late years have given a great deal of trouble. They claim with considerable reason to be the oldest settlers of the four chief hill tribes and trace their descent to Alexander the Great.

They have an old tradition to the effect that, at a time when they held the whole of the Murree hills, one of the women, named Abh, eloped with a man to the other side of the Jhelum. Nearly all the able-bodied men of the tribe went in pursuit. They came to a frozen lake which they mistook for hard ground, and settled down upon it for the night and lit their fires; this melted the ice, and they were all engulphed. In the meantime the Dhúnds came down upon their undefended homesteads, and destroyed what remained of the tribe. Hence this proverb of—

Abh loro—to
Sabh chhoro.

"Go in search of Abh and give up all."

Their principal men, none of whom are of great importance, are the headmen of Charihan, Shah Nawaz, Zaildar and Subádár 84th Punjabis, Feroz Khan and Hayat Ullah Khan.

Dhaniáls.

Dhaniáls occupy the Karor iláka of Murree Tahsíl and spread down into Ráwalpindi Tahsíl. Thirteen villages in the former and twelve in the latter tahsil belong to them. They hold none of the higher hills. They claim to be descended from Ali, the son-in-law of the Prophet. Although they intermarry with the other three tribes

CHAP. I. C. Population. Dhaniáls.

of Murree, there is some ground for considering them immigrants from the south. They are said to have given their name to the Dhani tract of the Chakwal Tahsíl, of Jhelum District, where a colony of them still exists. In physique they are markedly superior to the Dhúnds, Kethwals and Sattís, and are generally fine well grown men. In social rank they consider themselves superior to any of the hill tribes, but no outsider admits the claim. They are poor cultivators, but at least in Murree Tahsíl are generally in fair circumstances. Their quarrelsome and turbulent habits gave them for many years the worst of characters, and all the serious crime of the surrounding country used to be ascribed to them, but they have greatly improved of late years and are still improving. They are taking with avidity to military service and enlist by whole companies. Among them, as always, military service improves the character of the men and tends to stop the petty feuds which make up nearly the sole interest in the daily life of a home-staying zamindar. Of all the hill tribes they are the hardiest and the most manly.

They have no families who overtop the rest. Among their most prominent men are Mana Khan, retired Subadar-Major and Honorary Captain, Kala Basand, Fateh Ali Khan of the same village, and Karm Khan of Dakhain in Murree, and Sardar Ali Gauhar Khan, Bhambatrar, Allah Dad Khan, Pind Begwal, both Zaildars, and Haidar Khan, Chirah, in Ráwalpindi Tahsíl.

Jaskams.

The Jaskams are a small tribe occupying the villages in the Kahuta hills, in the vicinity of Panjar. Little is known about them, but there is little doubt that they are a purely hill tribe. They claim connection with the Dhúnds, but have much more affinity to the Sattis, with whom they divide the whole of the Pahar circle of Kahuta. In character and physique they somewhat resemble the Dhúnds, but with the Sattis they intermarry freely and have much in common. Like the Sattís they take all the military service they can get.

Miscellaneous Muhammadan tribes.

Daurán Khan of Salitha and Hashmat Ali Khan, Subadár, of Panjar, are their principal men.

Suddanas.

Suddans, who abound across the Jhelum in Kashmir, are found only in the Kahuta hills. Five villages are popularly described as Suddan villages. Only three of these are owned by Suddans. In the other two they are occupancy tenants under non-resident Mughal owners. They rank low in the social scale, are treated as strangers, and marry with their fellow-tribesmen in Kashmir. They claim Rájpút origin, but are usually given a status just above Gujars. They take military service freely.

Parachas.

Parachas own a couple of villages in Ráwalpindi Tahsíl. They are usually regarded as converted Khatris, but describe themselves as Mughals. They give their daughters only to Parachas and Sayads but are less select in their choice of wives. They are a thrifty and prosperous community.

CHAP. I, C.
Population.
Kashmírís.

All immigrants from Kashmir are called Kashmírís whatever their original tribe, and all of them take sooner or later to the Kashmírí's trade of weaving. Nowadays many Kashmírís take service in the army calling themselves Awans, Mughals or Rájpúts, and some have risen to commissioned rank. Nevertheless whatever the original tribe of the immigrant, and whatever the official rank to which he may attain, he is still a menial in his own village. Kashmírís are a prosperous class. The kind of silk weaving which they practise is profitable. They take readily to day labour, and try to get military service. Withal they are hardworking, quiet and thrifty. As a result Kashmírís are generally prosperous, and have acquired a good deal of land.

Telís.

Telís own several villages, and are scattered over the district as agriculturists. They are an important tribe in Ráwalpíndi Tahsíl near Rawat on Grand Trunk Road. They are good and industrious cultivators. At settlement the agricultural Telís made strenuous efforts to get their caste-entered as Awan in order to gain the benefits of the Land Alienation Act, and so gave great offence to their Awan neighbours.

Mianas.

Mianas are scattered in considerable numbers all over the district. They are the holy men who read prayers in the mosques and wash the bodies of the dead. Many of them take service in Civil Departments of Government and prosper exceedingly. A number are employed in the Survey Department where they reach posts of authority and responsibility. At the recent settlement their caste entries gave more trouble than any other. The great majority claimed Koresh descent. They are a prosperous and thrifty lot who cling to all the land they have, and are always ready to acquire more. Since the passing of the Alienation of Land Act they repudiate the name Miana, which they describe as the name of an occupation, but they still use the designation Mian. Apparently, even when he has given up the functions of a Miana and entered Government service or taken to other pursuits, a Miana has always up to now called himself a Miana, and as a Miana he is always known to the countryside. Their numbers may be expected to diminish till only a few village priests are left.

Brahmans.

Hindu castes are worth notice. Brahmans perform priestly functions and pursue money-lending and shopkeeping occupations chiefly in Ráwalpindi city. As agriculturists they are worth mention especially in Gujar Khan Tahsíl. In that Tahsíl there are several villages of pure agricultural Brahmans. They wear no Brahmanical thread, and make no pretensions to special privileges. As soldiers there is no one tribe in the tahsíl which has achieved so much distinction. With few exceptions all the principal native officers in the tahsíl are Brahmans. Ordinarily they do no money-lending, but there are exceptions and some of the exceptions are among the native officers. They do not take to education with

CHAP. I, C. Population. Brahmans.

the avidity of the Khatri, and none of them have distinguished themselves much in civil employment. As cultivators they do not rank very high, but work as hard as any of the high caste Rájpút tribes. Holdings are generally small in their villages, and the Brahmans, though now very prosperous, could not live without the military service, which they find ever increasing difficulty in getting for their sons.

In Ráwalpindi Tahsil the hereditary Brahman owners are pure agriculturists and in rather poor circumstances. They do little military service, but are generally respectable and fairly industrious. In the other tahsils Brahmans are money-lenders, pure and simple.

Muhials.

The following note on Muhials is supplied by Sardar Sant Singh, Extra Assistant Settlement Officer, himself a Muhial :—

Of these Muhials require special notice, and they are distributed in almost all the principal towns and villages in the district and amount to a good number. They are looked upon with peculiar respect. By origin they are a branch of the Sarsut Brahmans, but their ancestors before the time of Mahabhartha renounced the priestly office and devoted themselves to administration and military service and began to cultivate land. Many of them are hereditary owners of land.

They are divided into seven clans, Datt, Vaid, Bali, Chhibbar, Mohan, Lau and Bhimwal. They descend from seven Rishies. Drona Charj, the military tutor of the Pandavs, was an elder of the Datt clan.

The Muhials eat together and intermarry without scruple, but they look down upon other Brahmans and will not eat or intermarry with them.

Occasionally a Muhial takes to wife the daughter of a respectable Brahman, but the offspring is looked down upon, while if a Muhial gives his daughter in marriage to a Brahman he is punished by exclusion from his caste.

They are a fine looking, intelligent race, remarkable for its loyalty, pluck, enterprise, devotion to duty and military spirit.

They principally employ themselves as agriculturists and take eagerly military service, make fine soldiers and rise to respectable position in the Civil Department, but they are essentially a military race.

They specially reprobate three things:—the taking of charity, the handling of scales (banias' work) and living a life of laziness. They employ the titles of Bakhshi, Metha, Raizada and Dewan.

The following Muhial families of the Ráwalpindi District hold respectable positions :—

(I). *Ráwalpindi.*—Bakhshi Gur Narain Datt held a very respectable position both in the Military and the Finance in the Sikh Raj. Having charge of the Mahárájá's seal, he was known as Bakhshi "Chhoti Moharwala" and was specially selected to help the British Officers in demarcating the boundaries of Kashmír. He had jagirs in—

Bhair Rattial.	Tranbari.
Punj Giran.	Dawar.
Bhokar.	Golra, &c., &c.
Jaba.	

Bakhshi Beli Ram, Tahsildar, was his son, and Sub-Inspector Kashi Ram, Head Clerk, Ráwalpindi Police Office, is his grandson.

CHAP. I, C. Population. Muhials.

(2). *Gulyana.*—(*a*) Sardar Hukam Singh Datt, Honorary Captain, A. D. C. to His Excellency the Viceroy, is at present Sub-Registrar and Honorary Magistrate. S. Amir Singh, Rassaldar, and S. Tara Singh, Superintendent, Vernacular Office, Attock, are his sons.

(*b*) Dewan Bhim Sein Datt, Commander of the Forces of His Highness the Mahárája Guláb Singh.

(*c*) Dewan Hem Raj Datt, Commander of the Forces of His Highness Mahárája Ranbír Singh.

(*d*) Dewan Jawahir Mal Datt fought against Dewan Mul Raj at Multan with 2,000 men and received a handsome jagir from British Government. Of this family Diwan Ram Ratan and Wazir Chand are Rassaldars in 11th Bengal Lancers and 2nd Bengal Cavalry, respectively, and Prithmi Chand is a Naib Tahsildar.

(*e*) Bakhshi Hari Singh, Bhimwal, Governor, Gilgit. Bakhshi Jog Dhian his son is a retired Naib Tahsildar.

(3). *Dhera Bakhshian.*—Bakhshi Jawahir Mal, Vaid, a great Sikh Kardar. B. Dewan Chand, the present Tahsildar, Ráwalpíndi, is his son.

Bakhshi Prem Singh, Vaid, Rassaldar-Major.

Rassaldar-Major B. Tirath Ram is his son.

(4). *Sagri.*—Metha Wazir Chand, Mohan, Extra Assistant Commissioner and Sub-Judge. He was noted for public spirit and made a grand pucca tank and bungalow for public use at his native village.

Metha Ghani Sham Das, Vaid, is Revenue Officer, Peshawar, and his two younger brothers are Tahsildar and Naib Tahsildar in Jammu State.

(5). *Kurri.*—Bakhshi Harnam Dass Datt is Superintendent Vernacular Office, Deputy Commissioner's Office, Peshawar.

Khatrís.

There are very few hereditary agriculturists among the Khatrís in the district. Most of the land they hold has been acquired by purchase since first settlement. Even where they hold ancestral land they are always traders and money-lenders. As traders they are the backbone of the district. Almost every trader, shopkeeper and money-lender outside Ráwalpindi is a Khatri. An astonishing number are Sikhs, the proportion being nearly treble that in the characteristically Sikh districts of the Province. But their Sikhism is only a matter of long hair and change of name. The other requirements of the Sikh faith are not fulfilled. There is little to distinguish them from Hindús.

The Khatri of the district has a great deal to recommend him. He has plenty of spirit and a great deal of enterprize. A great deal of the mule-breeding and mule-dealing of the district is done by him. Physically the Khatrís are fairly well developed. As a money-lender he is not so grasping and unscrupulous as either Brahman or Arora. Numerically Aroras are few. They are practically unknown in all tahsils except Ráwalpindi. They are a purely shopkeeping caste.

Aroras.

Bhabras.

Bhabras are found in Ráwalpindi city and operate on the surrounding villages. They are a small and apparently diminishing community of about a thousand souls, and are by religion

CHAP. I, C.
Population.

Menials and artisans.

Jains. Their occupation is money-lending. They are despised for their unclean habits and hated for their extortionate ways.

The menial and artisan castes call for no special mention. They rank according to the nature of their occupations. Sunaras, Lohars and Tarkhans are the highest, the Lohar having a slight precedence over the Tarkhan. Telis, as has been said, are an important body of agriculturists. Even Lohars and Tarkhans own whole villages.

Tribal organization.

There is no uniform principle of tribal organisation of any kind in the district. The hill tribes look up to no chief men whatsoever. The tribes of the plains in general have a few leading families to which special respect is paid, but no actual authority is recognized by any of the tribes as vested in any of their chiefs. The hill tribes may be descendants of some polyandrous immigrants from the north. The people of the plains came from east and west and south or are aboriginal. But differences are disappearing. Customs are approaching one common level.

As regards intermarriage between the various tribes:—Sayads do not give their daughters in marriage to any but Sayads, and only take women in marriage from tribes of the highest rank, Gakkhars, Janjuás, and so on; Kureshís also only give their daughters to men of their own tribe. Mughals give their daughters to men of their own tribe, to Johdrás, Choháns and Awáns. Patháns give their daughters only to Patháns or Sayads. Awáns give their daughters to men of their own tribe, to Sayads or to Patháns, seldom to Khattars. Khattars give their daughters outside their own tribe, only to Patháns, Sayads or Gakkhars. Choháns only give their daughters, outside their own circle, to Khattars, Mughals and Awáns.

Paráchás only give their daughters to Sayads and Paráchás.

Dhaniáls give their daughters to each other, to Dhúnds, Kethwáls, Gakkhars, Sayads and Sattís, though when asked the question, they generally omit the Sattís. Dhúnds give their daughters to Kethwáls, Dhaniáls, Sattís, Gakkhars and Sayads.

Gakkhars only give their daughters to Sayads outside their own tribe. Gujars only give their daughters to Sayads; but Gujars, of all the various *gôts* or branches, intermarry with each other. Sattís marry their girls to Sattís, Dhúnds, Kethwáls, Gakkhars, Sayads, Duláls, Garwáls, Janjuás, Daniáls, Sangáls, Sudars, Janháls and Jasgáms, all of which claim to be Rájpút tribes.

Jasgáms give their daughters, outside their own tribe, to Sayads, Dhúnds, Janháls and Sattís; Janháls to Gakkhars, Garwáls, Duláls and Sayads.

Duláls (Janjuás) of Kahuta only give their daughters to Sayads or Admál Gakkhars; other Duláls include Garwáls within the circle, Garwáls give to Gakkhars, Sayads and Kahuta Duláls.

CHAP. I, C.
Population.
Tribal organization.

All the tribes are very much more particular about the rank of the tribe to which they give their daughters than about the rank of those from whom they take their own wives. The custom throughout is for each tribe to give its daughters only to those whom it looks upon as of superior or at least of equal rank, but it will generally take a wife from a tribe which it holds to be slightly inferior in social rank but of the same class.

The following are the tribes gazetted under the Alienation of Land Act :—

Awán.	Khattar.
Biloch.	Kureshi.
Dhaniál.	Maliár.
Dhúnd.	Mughal.
Gakkhars.	Pathán.
Gujar.	Rájpút.
Ját.	Satti.
Jodhra.	Sayad.
Kethwál.	

Religions.

The population is mainly Muhammadan. The urban population is not preponderatingly Muhammadan, Hindu or Sikh, but the immense majority of the rural population, including the original land-owning classes as a whole, and almost all the village menials is Muhammadan.

The following table shows the distribution by religions of every 10,000 of the rural, urban and total population of the district :—

Religions.	Rural population.	Urban population.	Total population.
Hindu	504	3,763	1,026
Sikh	425	717	472
Jain	1	112	19
Muhammadan	9,063	4,667	8,359
Christian	7	741	124

Muhammadans.

The great bulk of the population are Muhammadans of the Sunni sect. The form of Muhammadanism is that common to the rest of the Province. Only the very pious observe the fast of Ramazan, pray regularly in the mosque or distribute a part of their incomes as alms. The common agriculturist is very lax in these observances and is ignorant of the tenets and principles of his religion. Though convinced of the truth of his creed he is not fanatical, and cherishes hatred for no one of another religion except the Sikhs, the memory of whose extortionate assessments and severity is still alive. There is no religious animosity. There are few Shiás, less than three thousand. It used to be thought that the Gakkhars were Shiás. A few may be of that sect but not many. Shiás make no show in the district and are not influential. Religion has little influence on conduct, which is regulated by social conven-

CHAP. I, C.

Population.

Muhammadans.

tions. Religion for the majority is a rule of ceremonial purity and a social system. It regulates marriage, funeral and other ceremonies, but is not a guide to every day conduct and belief. Perjury and falsehood are regarded as not very sinful. An oath sworn on the Koran at a holy shrine is broken only by the impious few: but the most solemn oath is the "talak" or oath of divorce, taken by few and seldom broken. Among Patháns it is freely volunteered, but not by other tribes. Every village has its mosque or mosques. In the hills many of these are pleasant places on the hillside with a flat paved courtyard, a few spreading trees and elaborately carved wooden doors. In the plains the mosque is sometimes a mud hut little better than a zamíndár's house, sometimes more pretentious with carved door, flagged pavement and "hummám" for heating the ablution water. In a few of the more prosperous villages the mosque is of masonry work and ornamented with painted scroll work.

The mosque attendants are Mianas, Imams or Ulmas, who keep the mosque in order, teach a few of the children to repeat the Koran by rote, and conduct the services at marriages and funerals.

Hindus.

Hindus are found in any numbers and in large communities only in Ráwalpindi city. There their religion is that of the Hindu in other cities of the Punjab. The Hindu of the villages clings to no peculiar belief, and holds no tenets very strongly. They still venerate the cow, but their belief in the efficacy of presents to Brahmans has almost disappeared. They have very few shrines and these seem always deserted. Hinduism appears to be slowly losing ground in the district. The gainers are the Sikhs.

Sikhs.

The Sikhs of the district are not very numerous but they are of considerable importance. The spiritual head of the Pothwar Sikhs, Baba Khem Singh, K.C.I.E., had his headquarters at Kallar in the Kahuta Tahsil where he built himself an imposing house. The prominent feature in the ritual of Sikhism is the worship of the Granth Sahib, their sacred book, but Sikhism in the district is little to be distinguished from the common lax Hinduism. The most interesting features of Sikhism in the district are its continued progress and the extent to which it has been embraced by the Khatrís. The proportion of Sikhs among the Khatrís is treble that proportion in the purely Sikh districts of the Punjab. Kuka Sikhs are practically unknown. The majority appear to be Nanak Panthis.

Jains.

Jainism is professed only by the Bhabras, a small trading class of Rawalpindi who deserve passing mention. They are willing to do all kinds of work, and are all well-to-do. They only number 800 souls all told, but are divided into nine tribes. Their most remarkable characteristic is their custom of undergoing long voluntary fasts, ranging from 6 to 10 days, during which they are said to eat nothing and only drink water. They will not eat flesh or drink wine, and are very careful not to destroy animal life in

their food and drink. They usually wear red "pagris" (turban), whatever their age, and generally some jewelry. They are one of the innumerable small Hindu sects of India, and form a somewhat remarkable little colony in Ráwalpindi.

CHAP. I, C.
Population.

Holy men.

A prominent feature in the religious system of the district is the reverence paid to saints and holy men. Considerable reverence is paid to Sayads and Koreshis among Muhammadans and to Bhais and Bedis among Sikhs, but the holy men need not necessarily be holy by caste. The most holy man in the hills is a Tarkhan. When a saint has by austerity or some miraculous power gained a reputation for sanctity, it often descends not only to his shrine or tomb but also to his descendants who are revered as holy men, even though their character and conduct may be openly profligate. Holy men have considerable influence even in secular matters. The Dhúnds, who have recently abandoned the custom of Chundewand for that of Pagwand, ascribe the change to the influence of the Moulvi of Mohra Iswal who made a pilgrimage through the tahsil. More probably the change was due to a recognition of the unsuitability of the custom, so little in accord with the present day spirit of their tribal customs.

Superstitions.

The superstitions of the people here, as elsewhere in this country, are very numerous and complex; and any complete account of them would take months to write, and the necessary information years to collect.

The Gakkhars are probably the most superstitions of all the Musalmán tribes. Hindús are more superstitious by far than Muhammadans.

The common forms of superstitions are found here as elsewhere; it is held unlucky to start on a journey northwards on Tuesday or Wednesday; Mondays and Fridays are lucky days to commence such a journey. It is bad to start southwards on Thursday; good on Wednesday.

"Mangal Budh na jáeye pahár, Jiti bázi áeye hár" ("Do not go northwards on Tuesday or Wednesday, for if you succeed it will still end in loss") is the popular proverb on this subject.

You should not go east on Monday or Saturday, but should choose Sunday or Tuesday, if possible; for journeys westward, Sundays and Thursdays are bad, Mondays and Saturdays are good. On starting on a journey it is fortunate to meet some one carrying water, to meet a sweeper, a dog, a woman with a child, a Khatrí, a maiden, all kinds of flowers, a *máli* (gardener), a donkey, a Rája, a horse-man, a vessel of milk, curds, *ghi*, vegetables, sugar or a drum (*nukára*).

It is considered unlucky to meet a Brahman, a Mullán, a man with a bare head, any person weeping, smoking fire, a crow flying towards one, a widowed woman, a broken vessel in a person's hand,

CHAP. I. C.
Population.
Superstitions.

a cat, a gardener with an empty basket, a goat or a cow or any black animal, a snake or an empty *gharrah* carried along. To hear the sound of crying or to hear a person sneeze while on a journey is most unfortunate. This last will almost always occasion at least a delay in a journey. It is not easy without much more careful enquiry than a Settlement Officer can find time for, to give any satisfactory reason for these superstitions: meeting water at starting is considered lucky, because water is much prized; sweepers are humble, honest and useful; dogs are faithful, and so on. Brahmans are seldom seen without their asking for something; Mulláns are unlucky to meet for much the same reason.

Zamíndárs will not commence ploughing on Sundays or Tuesdays. It is considered very unlucky for a cow to calve in Bhádon, for a mare to drop a foal in Sáwan, a buffalo to calve in Mágh, a cat to have kittens in Jeth, a donkey to have a foal in Sáwan, a camel to have young in Baisákh, a goat to have a kid in Poh, or a dog to have pups in Chet. If any of these things happens in any household the Brahman or Mullán is at once consulted as to what should be done, and the prescriptions always include a fee to the person consulted, in some shape or other. To hear a horse neighing in the daytime is unlucky. Hindús greatly dislike to have a child born in Katik.

Lucky days, depending usually on the state of the moon, are recognized here as elsewhere. Charms and spells to ward off evils from, and to cure the diseases of, men and cattle are commonly believed in and are highly esteemed by both Muhammadans and Hindús. Only the Patháns of the district appear to care for none of these things.

A very curious instance of imposture and credulity occurred in the Ráwalpindi District in the year 1879, known always as the "Háfiz's swindle." A man of the name of Sháh Zamán, an Admál Gakkhar of the Nauroz Khan Branch, of Mauza Nára, of tahsíl Kahuta, was the hero of the swindle. He owned land paying Rs. 6-14-0 per annum, and had no brothers. He was born in Chet 1915, March 1859; and when three years old became blind after an attack of small-pox, and began to learn at the Masjid and committed to memory 5 out of the 30 Sipárahs of the Qurán, and then gave it up; but by this means he acquired the title of "Hafiz." He then went and became the pupil of a *fakir* of Beor, tahsil Kahuta, known as Sáin Fateh-ulla, "Fakir Naushahi," a man of no note. In the end of 1879 our Háfiz went and settled in Mauza Lulihál, tahsil Gujar Khan, where he had relatives. There he kept a forty day's fast, and became known through this and began to attract disciples, giving out that he could obtain their desires for them, whatever they might be, discover stolen property, &c. A zamíndár of Dokhua had some jewels stolen from his house; he came to the Háfiz and offered him quarter of the value if he could

CHAP. I. C.
Population.
Supersti-tions.

discover his jewels. They had not been discovered when the zamíndar went to the thána and reported him as a *jádúgar* (sorcerer), and said that he had taken Rs. 5 to discover the jewels. The case was sent up and investigated by Sálig Rám, Extra Assistant Commissioner. Sardar Bákar Khan, Rais, of Mator, and Mirza Hashmat Ali Khan of Nára came in and represented him to be a poor and blind and inoffensive man. In absence of proof against him he was released; and he then gave out that God had brought about his release in order that he might help his impoverished Musalmán brethren who were now so much indebted and in the hands of money-lenders, and declared that he was going to clear off their debts. He accordingly announced that for every rupee brought to him he would return five rupees. Some zamíndárs of Lulihál brought in a few rupees and received the promised return. The news soon spread and rupees began to pour in. At first the promised return was always made until crowds began to assemble daily with rupees for the Háfiz, who then made one Fateh Jang, of Sukho, his Munshi at Re. 1 per day, and began to enter the amounts paid in and to announce more distant dates for their return four-fold. Then he summoned Nádar Ali, Gakkhar of Doberán, his relative, to come and also act as his Munshi. For some time the money was regularly repaid two-fold, three-fold, and even four-fold as at first announced. The Háfiz always made the returns with his own hand, and he began to be looked upon as a "Wali." He used to sit at night on his bed and throw rupees up against the roof; the people outside heard this, and it was spread about that God rained down rupees upon the Háfiz every night. When he had got a large number of rupees collected from believers, Bákar Khan, Garwál, of Mator (since murdered), Mirza Hashmat Khan, Gakkhar, of Nára, and Hashmat Ali Khan of Lehri, all of tahsil Kahuta, took away the Háfiz with them, first to Mator, where he received many more rupees; and Faiz Talab of Nára was made a third Munshi. The Háfiz then moved on to Nára, and commenced to build a masonry house. It then began to be reported that when any one brought rupees to give to the Háfiz, the three Rais mentioned above took ten per cent. for themselves first. This still left such a margin of profit that rupees continued to be poured in. The Háfiz then took to veiling his face and saying long prayers. He appeared to take no thought of his rupees. People sent their daughters to him with money, and it was said that he had given money to poor people to marry their daughters. Then the Háfiz married in Mauza Lulihál himself, and afterwards betrothed himself to a woman of Doberán, but before this second marriage could come off, the bubble burst. Bakhshi Khushwakt Rái, a Khatri of Kallar, made a report of his proceedings, and a warrant was issued for his arrest, but notice reached the Háfiz and his three "Musáhibs," as Bákar Khan, Hashmat Ali, and Hashmat Khan were called, who were then at Nára, before it could be executed, and it is reported that they

CHAP. I, C.
Population.
Supersti-tions.

cleared off with all the money; Mirza Hashmat Ali getting, according to common report, which rests on no foundation of proof, Rs. 7,000, Bákar Khan, Rs. 8,000, Mirza Thánu, nephew of the Háfiz, Rs. 12,000, Hashmat Khan, Rs. 7,000, Mirza Thánu of Lulihál, Rs. 4,000, Nádar Ali Munshi, Rs. 20,000, Fateh Jang, Munshi, Rs. 8,000, Juma Khan, of Maira, Rs. 2,000. Of course this is all hearsay, and is merely given as the gossip of the country side, forming part of the story. The father of the Háfiz is also said to have buried a quantity of money. Debts were certainly paid off by some of those concerned about this period in a wonderful way. At Lulihál, a box containing Rs. 25,000 was said to be in possession of the relatives of the Háfiz, who buried it in a field whence it was stolen by an outsider. Many persons were nearly, if not absolutely, ruined by this swindle, having sold and mortgaged their property to bring money to the Háfiz.

When the Deputy Inspector of Police, with the warrant from Kahuta, reached Nára, he arrested the Háfiz, and his three associates. No money was found in any of their houses. Before the arrest, Nádar Ali's friends had placed Rs. 4,000 with Rám Diál, and Rs. 2,960 with Khazána, goldsmith, in deposit, both of Doberán; and also buried some money in a field in a *degcha* (cauldron), which was discovered and dug up, but nothing was found in Nádar Ali's houses. All the parties were sent up for trial, and the trial cost all the accused, according to common report, a very large sum of money in legal and also in illegal ways. The result was finally that the Háfiz was imprisoned for one year and a half for his impudent and daring swindle; Nádar Ali for 2½ years; Farmán Ali, father of the Háfiz, for six months; Sirdár Bákar Khan for six months; Hashmat Khan, of Lehri, for six months. Mirza Hashmat Ali was not convicted. Bákar Khan and Hashmat Khan were released on appeal, and their sentences quashed. Hashmat Ali died in prison; the rest served their times and were then released.

The Háfiz lost nearly all he had got during the progress of the trial, being made to pay freely in all directions. The common saying on the subject was—

Mál-i-harám búd,
Bajá-i-harám raft,

("His ill-gotten gains have gone in the same way as they were acquired.")

The Háfiz after his release remained three or four years in his home, and then went to Mauza Soháwa, tahsil Chakwál, in Jhelum, where he began the same game again; but when he had got Rs. 2,000 together, he was again arrested and put into prison on a further sentence of two years' imprisonment in the Jhelum jail. He was released on account of the Queen's Jubilee, being apparently considered a fit subject for clemency. The following is a

song made up in the district on the whole case, which is still commonly sung in the villages in which the Háfiz was best known :—

SONG OF THE HAFIZ

1. Ganna kamáde da adh-lakkon tarutiái,
Mál logán da us zori lutiái.
The sugar-cane has been broken in two,
He greatly robbed the people.

2. Háfiz Náre da Mehro ti bhuliái,
Mál logán dá kassi wich ruliái.
Háfiz of Nára was enchanted by a woman (Mehro),
The money was thrown into the ravines.

3. Wáh ! Wáh ! Háfiz dián kamáián,
Main ta kari pazebán páián.
Háfiz's performance was good,
I came to wear bracelets and anklets.
Note.—(This is supposed to be Mehro's remark.)

4. Háfiz Náre da piá rori kutdái,
Mál logán da us zori lutiái.
Háfiz is pounding kankar,
He swindled the people grossly, and stripped them off.
Note.—(This is an allusion to hard labor in the jail).

5. Main tá nawín nath gharái,
Oh bhi Háfiz de kam ái.
I caused to be shaped a new nose-ring,
That was lost in Háfiz's swindle too.
Note.—(The lamentation of a woman who gave her jewelry to the Háfiz.)

6. Main ta nawín gharái wáli,
Oh bhi Háfiz pichche gáli,
I got made a new ear-ring,
That was also lost for Hafiz's sake.

7. Háfiz phas giá par-desi,
Us di kaun gawáhi desi,
Háfiz, a helpless fellow, is put into prison,
None there is to give evidence in his favor.
Note.—(This may be taken as sympathetic or sarcastic).

8. Main áj gharáián karián,
Gallán ja Sarkáre charhián.
I got bracelets made to-day,
But the matter came to the notice of the authorities.

9. Sun ke Háfiz dián auliaíán,
Logán zaminán gahne páián.
They heard that the Háfiz was " wali,"
They mortgaged their lands (*i. e.*, mortgaged their lands to give to the Háfiz to get a double return).

There is a good deal more, but this will suffice as a specimen.

When rain fails for any considerable period, and the people are threatened with drought or famine, they proceed to invoke rain in some of the following ways :—

I. They take grain, collecting a little from each house and place it in a vessel of water and boil it, and then take it to a *khankah* or *masjid*, and after prayer divide it among all present.

CHAP. I, C. Population. Superstitions.

II. Men and women collect together, and repair and clean up the *masjid* and pray there.

III. A boy is taken, and his face blackened and a stick put into his hand. He then collects all the other children, and they go round begging from every house and calling out—

> Aulia! Maulia! Mính barsa,
> Sádi kothi dáne pa;
> Chiriye de múnh páni pa;

and whatever grain they collect they boil and divide.

IV. Men, women, boys and girls collect together and fill a *gharah* with water, mud, cow-dung and similar things, and, choosing out the most quarrelsome person in the village, they fling this *gharah* into his or her house; upon this a violent quarrel immediately takes place. The idea is that the Almighty, seeing to what straits they are reduced, will send down rain.

V. Men and women fill *gharahs* with water and take them and pour them over some holy person and bathe and wash him telling him to pray for rain.

VI. Boys and girls are collected together: two dolls are dressed up as a man and a woman, and then they all say, *Guddi gudda margia*: and they then burn them with small sticks and lament their death saying:—

> Guddi gudda sária
> Was mián kalia;
> Guddi gudda pitta,
> Was mián chittia;
> Kále patthar chitte ror,
> Baddal pia giranwen kol;

Which may be translated thus—

> Dolls we burnt to ashes down,
> Black cloud! soon come down;
> Dolls well we bewailed,
> Do, white rain! set in;
> Stones black and pebbles white,
> Cloud (rain) fell near village site.

VII. Several women of one village go to another and seize goats from their flocks. The women of that village come and fight with those taking the goats. If they do not succeed in rescuing the goats, they too, take goats from another village. The stolen goats are then killed and eaten. This is supposed to show that the women are starving, and thus to appeal to the pity of the deity.

VIII. The common people get some person of high rank who has never put his hand to the plough to come and plough some land. It is said that on one occasion a former Deputy Commissioner was induced to put his hand to the plough, an action which was speedily followed by the fall of the desired rain!

CHAP. I, C.
Population.
Supersti-tions.

Such a state of affairs is supposed to be indicated by this, that the deity must be moved thereby to send rain. Numerous instances are quoted in which such a proceeding on the part of men of high rank and station was effectual in bringing down rain from heaven.

IX. In Sikh villages, the Granthi reads prayers night and day until he has gone through the whole. Then confectionery is divided and presents are made to the readers, and a valuable cloth is placed on the Granth book.

X. The Mulláns and others go to the *masjid* and call the *báng* seven times at each corner, and also go round the village calling the *báng*. Crowds of villagers assemble and repeat prayers. This is known as *zari*. Religious books are read and presents made to priests and shrines. A ploughshare's weight of grain is a common gift at such a time.

Ecclesiastical administration.

A Church of England Chaplain is posted at Ráwalpindi, his work lying among the troops of the garrison and the large civil population of the station. The Garrison (Christ) Church, built in 1854, and restored in 1879, contains 730 sittings, and is lighted with gas. In the winter of 1886-87, owing to the large number of troops in garrison, the work was so heavy that a Presbyterian Chaplain was appointed for Ráwalpindi in addition to the regular Chaplain. The present Roman Catholic Church was completed in 1880 : the old one is now used as a Convent School. During the cold weather, a Presbyterian Chaplain is stationed at Ráwalpindi, and holds divine service in the garrison prayer-room. About two miles from cantonments, a Church of England church has been built for the use of the Railway officers and employés. From November to April a second Government Chaplain is stationed at West Ridge and ministers to the large garrison there and to the Railway population. An American Presbyterian Missionary carries on the work of evangelization ; and connected with the Mission is a small but handsome church in the city. At Murree there are three churches—Church of England, Presbyterian and Roman Catholic. The Government Chaplain has also spiritual charge during the summer months of camps Ghariál and Cliffden. At the latter place he is assisted by the Principal of the Lawrence Asylum. The camps at Kuldannah and Thoba are visited by a Chaplain posted for the season to the Gullies. At the Lawrence Asylum there is a chapel, capable of seating 300 persons. The Church of Scotland proposes to begin at once the building of a large Gothic Church on the Mall in Ráwalpindi.

Christian Missions.

The following account of the thriving American Mission is supplied by the Manager of the American U. P. Mission High School.

Notes on Mission work in Ráwalpindi District.

"In the spring of 1856 the Presbyterian Church of the United States of America established a mission in Ráwalpindi which they

CHAP. I, C. Population. Christian Missions.

turned over to the United Presbyterian Church of North America in 1892.

"Great attention was given to education from the first, and these early efforts have resulted in a College, a High School and a Girls' School There is also a self-supporting congregation and several book rooms in the city and one in Murree. The Mission too has for many years superintended the local Leper Asylum for the Mission to lepers, and efforts are made in other ways to interest the people in Christianity.

Gordon Mission College.

"*History.*—The College was organized in connection with the Mission High School in 1893. At first the courses offered were up to Intermediate Standard only, but in 1902 the B. A. Courses were introduced.

"In 1907 six candidates were sent up for the B. A. Examination of the Punjab University, of whom four passed. In the same year there were 13 candidates for the Intermediate Examination, of whom 10 passed.

"*Equipment.*—The Gordon Mission College is the only College north of Lahore teaching to the B. A. Standard. It has a staff of three American and six Indian Professors. Of this number seven are University Graduates.

"The location is excellent, being just on the edge of Ráwalpindi city and opposite the Municipal Garden. The grounds are large measuring seven acres in extent. There is ample accommodation for football, basket ball, and tennis, the games played by the students.

"The buildings include the main College Hall, the Boarding Hall, two bungalows and a cottage. The larger wing of the College Hall was erected in 1901-02. The Principal's bungalow was erected in 1905.

"The main building includes an assembly hall, eight lecture rooms, a chemical laboratory, a well equipped biological laboratory, a library and reading room, a staff room, and the office. The Boarding Hall contains accommodation for 35 men

"The College has been recognized for the award of Arts Scholarships since 1895, and came upon the list of aided colleges in 1904.

"*Courses.*—For the Intermediate Examination, lectures are given in English, Mathematics, Philosophy, History, Physics and Chemistry, Botany and Zoology, Persian, Sanskrit, and Arabic.

"For the Bachelor's degree courses are offered in English, Philosophy, History, Mathematics Pure and Applied, Persian, and Sanskrit. No Science courses for the B. A. Examination are yet offered, though considerable apparatus has been purchased and is in use in the Intermediate classes.

"*Students.*—In June 1907 there were 50 students enrolled, of whom 11 were Christians, 15 Muhammadans, 8 Sikhs and 25 Hindus. **CHAP. I. C. Population.**

"*Buildings.*—The Main School is accommodated in a large building containing a large hall and several class rooms. There are two other rows of class rooms in the same compound. A Boarding House accommodating 43 boys was erected in 1904. These buildings are all in a large compound where cricket, football, tennis, and native games are played. **High School.**

"The City Branch is accommodated in a convenient building and compound in the heart of the City and the Sadr Branch in a building with a very small compound near the Kotwali. The Lal Kurti Branch is housed in a rented building.

"*Attendance.*—The attendance, which has never been so large since the outbreak of plague in 1903, is as follows:—

Main School	594
City Branch	125
Sadr Branch	122
Lal Kurti Branch	74

"*Maintenance.*—The cost of the school for the year ending May 31st, 1907, was Rs. 25,615-6-6, which was met from the Government Grant, the Provincial and Municipal Funds, the fees paid by the students, and a grant from Mission Funds.

"This is accommodated in a rented building and is attended by both Hindu and Muhammadan girls. No fees are charged, and the attendance is 125. The courses laid down by the Educational Department are taught up to the Upper Primary, and the expenses are partly received from Government in the way of a Maintenance Grant. **Girls' School.**

"The local Leper Asylum, containing about 100 inmates, was recently taken over from the Government by the Mission to Lepers, for whom it is superintended by the American Mission. A Hospital Assistant and helper give their whole time to attending to the medical wants of the lepers and teaching them. The Government has sanctioned a grant for buildings and the work has been taken in hand. The old mud huts will soon give place to a carefully arranged group of commodious and substantial brick structures. **Work among the lepers.**

"This branch of the work is carried on chiefly through the instrumentality of public reading rooms, bazar preaching, sale of religious books, and Sabbath Schools for non-Christians. **City evangelistic work.**

CHAP. I, C. — Population. City evangelistic work.

"Three public reading rooms are maintained, one in the city, one in Sadr Bazar and one in Lal Kurti. Papers and books are always at hand, and the rooms are visited by a considerable number daily.

"Bazar preaching is carried on usually in connection with the reading room work and a ready and usually a respectful hearing is accorded the evangelists.

"The sale of books is maintained through the instrumentality of the reading rooms and by a travelling colporteur. This is an interesting as well as an increasingly important branch of our work. The sales of the past year aggregated about Rs. 750.

"Sabbath School services for non-Christians are maintained at four distinct points, and the attendance and interest are encouraging.

"In addition to the above methods, an effort is made to reach men with the gospel message by personal contact with them in various ways.

Christian community.

"There is a self-supporting congregation of 81 members and a Christian community of about twice that number.

Itineration.

"During the winter months some part of the district is visited, and in addition to the preaching of the gospel considerable medicine is distributed.

Murree.

"In the summer when itineration in the district is impossible the Missionary in charge of the district work goes to Murree to minister to the Christians who gather there, and efforts are also made to reach the Hindus and Muhammadans. A library and reading room is kept open and lectures are given on religious subjects.

Missionaries.

"There are at present located here three married ordained Missionaries, two laymen and four ladies, in addition to two Professors in the College who are here for a short time. One Missionary is in charge of the work in the district and that in Murree. One is Principal of the College with one layman and two young men to assist him. One of the laymen has charge of the city work and the Leper Asylum; the other has charge of the High School. Two of the ladies are located in sadr for work in the zenanas and two in the city for the same work there as well as to manage the school and itinerate in the district in the winter. In the summer one of the latter goes to Murree to work among the women."

Occu ation.

As regards occupations in the sense of employment or means of livelihood it is sufficient to note briefly how the population

CHAP. I. C.
Population.
Occupation.

is divided between the main heads adopted at the census of 1907:—

	Per cent. of the population.
Agricultural	64
Industrial	16
Commercial	4
Professional	2
Administration	4
Independent	3
Personal Service	4
Others (chiefly unskilled labour)	3
Total	100

Daily life.

The men of the agricultural population are more or less employed in some one or other of the operations of husbandry all the year round. Except in the very hot weather, the cultivator rises just before dawn, milks the cows and goats and then goes off to the plough. Ploughing goes on for nine months of the year, that is, in all months but November, December, January. In the hills the plough is not so much used as the spade.

In the hot weather (May, June, July), ploughing goes on till about 10 A.M. and the zamíndár rises about 3 A.M. When sowings are going on, the cultivator will be out all day. Malliárs work on their irrigated lands chiefly with small hand hoes all day; the women of this tribe also do much work of this kind. On returning from the plough the cultivator has to feed and water his cattle, and prepare oilcake and sift chopped straw for them; on this work all the males of the household from five or six years of age upwards give their aid.

In the various months of the year the cultivator's time is taken up as follows:—

In January, from 15th Mágh, he commences ploughing for the next autumn and the following spring harvests, and takes on his agricultural servants.

Ploughing goes on for the next month also, and by the end of it some of the *sarson* and young wheat is ready to be cut for fodder.

In Chet (March) ploughing still goes on, and melons and pumpkins and cotton are sown.

In Baisákh (April) ploughing proceeds; *moth* is sown, and *sarson* and *tárámíra* are cut as well as barley and gram, and in the hotter tracts some of the wheat.

In Jeth (May) some ploughing is done, and the wheat is cut, and some of it garnered.

CHAP. I. C. — Population. Daily life.

In Hár (June) some ploughing is done, and the remainder of the wheat threshed and garnered, and, except in manured lands, maize, *bájra jowár*, and *múng* are sown.

In Sáwan (July) much ploughing is done, and the manured fields are sown with maize, *bájra*, &c.

In Bhádon (August) much ploughing for the ensuing spring harvest is done, and ploughing is done between the stalks of growing crops of *bájra*, *makki*, &c., and green grass is brought in for the cattle.

In Asúj (September) wheat, gram, *sarson*, and other spring crops are sown, and much of the *bájra*, *makki*, and *jowár* is cut.

In Kátak (October) sowing for the spring harvest still goes on, and the *moth*, *mung*, and *másh*, hemp and similar crops are cut and garnered.

In Maghar (November), should rain fall seasonably, the Lipára lands, which have just yielded an autumn crop, are sown with spring crops.

In Poh (December) there is little field work done. Hemp is picked and daily labor frequently undertaken.

Gakkhars and some of the other Sahús rarely cultivate themselves, and spend a life of almost complete idleness, unless they have taken service in Government employ.

Occupations of women.

The women of the cultivating class spend their lives as follows:—

They are usually married about the age of 12, when they are supposed to have come to maturity. When they first come to their husbands' houses, for a longer or shorter period, according to the status of their husbands, they are kept from work for from ten days to a year.

When they commence their household labors they rise early before sunrise, make the butter and sweep out the house, and bring the water, from two to five *gharahs* full. When the women are in *parda*, they bring the water before daybreak. Later they mix the flour and water for food, collect the cow-dung, prepare their husbands' food, and, if the men should be out in the fields, take it to them with buttermilk. Then, on return, they spin and sew the clothes of the family and grind the corn, then prepare for the evening meal, and then sometimes spin again. In the harvest time they watch the ripening crops to keep off the birds.

They also from time to time plaster the walls and floor and repair the fire-places, and so on. The rest of their time is taken up in going to and from wedding or funeral feasts and ceremonies, saying their prayers, and other miscellaneous matters. The women of the cultivating classes assist the men in every branch of their work, except ploughing.

Occupations of women.

Most of the cotton-picking is done by them. They glean the fields at harvest, and in the lower classes carry manure to the fields, weed the crops and make themselves generally useful. The higher the tribe comes in the social scale of precedence the less the women help the men in outdoor work. Thus Gakkhar and Janjua women take little or no part in such labours. The women in the less particular tribes do almost all kinds of agricultural work, except ploughing and clod crushing.

Divisions of time.

The day is divided by Muhammadans and Hindus into the following portions :—

Musalmáns.	Hindús.	Corresponding English time.
Sargi	......	3 A.M.
Dhami or Suntán da vela ...	Amrit vela or Parbhát vela ...	3 A.M. to 4 A.M.
Fajr or Namáz vela	Bara vela	About 5 A.M.
Kachchi roti vela	......	8 A.M.
Roti vela	Roti vela	10 A.M.
Dopahrán	Dopahrán	Noon.
Peshi	......	2 P.M.
Lohri Peshi	Laudhe vela or nadhe vela ... or	4 P.M.
Digar	Degchián vela	5 P.M.
Namáshan or Shám	Tarkálán vela	7 P.M.
Khuftán or Sota	Sota...	8 to 10 P.M.
Adhi rát	Adhi rát	Midnight.

Food.

The meals of the ordinary agriculturist are as follows :—

At *kachchi roti vela, i.e.*, 8 A.M., a small meal of bread (*chapátis*) cooked the night before, and left over from last night's meal, made of *bájra* (millet) or wheat, with butter-milk, or salt and pepper, if *lassi* (butter-milk) cannot be got. At *roti vela,* or breakfast, or 10 A.M., a full meal of new baked cakes (*chapátis*) of bullrush millet or wheat with butter-milk is eaten. At *peshi vela*, or 2 P.M., or so, a piece of the bread left over from the morning meal is eaten with salt and pepper.

At *namáshán*, 7 P.M., the chief meal of the day, consisting of bread (*chapáti*) of millet, maize or wheat with *dál* made of *másh* or *múng*, *moth* or *ság* (*tárámíra* or *sarson*), with occasionally meat or chickens and sweets, is eaten. In the hills the cakes are usually of maize or rice.

CHAP. I, C.
Population.
Food

The food of the people is, therefore, usually in the plains, of wheat or millet (*bájra*); and in the hills, chiefly of maize with some wheat. It is not common to mix gram with other grains as the food of the people.

Ghi is a luxury not much indulged in. When it is made by zamíndárs, it is usually for sale and not for home consumption. *Gur* is also a luxury not easily obtained.

Dress.

The wardrobe of the men of this district usually consist of *pagri*, *kurta*, *chádar*, *langota*, *fargal*, *loi*, *suthan*, or *tambi*, and *juti*.

The *pagri* is usually of large size, often twenty yards in length. The *kurta* is usually made of home-spun white cloth, a long loose blouse. The *chádar* is made of *gárah*, a coarse white cotton home-spun, about three yards in length, and about 1½ in width. It is used as a cloak, and is almost universally worn. The *langota*, or waist-cloth, is made of much the same description of cloth. The *fargal* is an overcoat worn over the *kurta*, but often made to do the duty of both. The *loi* is a soft blanket, usually made from sheep's wool. The *suthan* or *tambi* is a loose trouser or *pajáma*, made of the same coarse cotton cloth as the *kurta*. The *juti*, or shoes, are of the usual description worn by natives.

The women wear *suthan*, *kurti*, *bhochhan*, *salári*, and *juti*.

The women's costume does not differ very materially from that of the men. They wear loose, very full, trousers, tight at the ankle, generally of colored cotton cloth, with silk lines running through them. They contain much cloth, sometimes as much as twenty yards, and hang in innumerable folds ending in a tight band at the ankle. They have generally a working pair and a dress pair.

The *kurti* is a coat of cotton cloth, usually finer than that used by the men, of home-spun or purchased from the bazárs, usually colored, but sometimes white. The *bhochhan* is a kind of shawl, worn over the head and hanging down over the shoulders and body, about three yards in length, of all colors.

The *salári* is a colored cloth, usually blue or yellow, used on *gála* occasions or on appearance in public, made of cotton mixed with yellow or red silk; these often give a gay and picturesque appearance to a group of women. They are much worn throughout the district. The women's shoes are of the usual type.

The ornaments worn by the males are *mundrán*, *chháp*, *kara*, and *hassi*.

The *mundrán* is a small ear-ring, usually of silver, occasionally of gold, worn by boys, and youths, but discarded later in life. *Chháp* is the signet ring, usually of silver. *Kara*, a bracelet, is occasionally worn by youths, seldom by grown-up men. *Hassi*, or necklace, is only worn by boys.

CHAP. I. C.
Population.
Dress.

The women's ornaments consist of—

Pazeb, kara, bangán or *chúrián, chháp, chhalla, hasli, itti* or *jawa, bahádarián, tavitri, koka,* or *nali* or *long, bolák, nath, bhovatta, chandkán, patri, har-hamel, tikka* or *dholna, chaunpkali, hauldili, tawíz,* and *jugni.*

Pazeb or anklet, usually of silver; *kara,* a brace-let, also usually of silver; *bangán* or *chúrián,* bangles of silver; *chháp,* an ear-ring; *chhalla,* ring; *hasli,* necklet, usually of silver; *itti,* locket of gold or silver; *baháddarián,* large ear ornaments, usually of silver; *tavitri,* an ornament worn on the forehead; *koka,* or *nali* or *long,* nose-ornaments of silver or gold; *bolák,* a golden nose-ornament; *nath,* a nose-ring; *bhovatta,* a silver armlet, worn above the elbow; *chandkán,* an ear ornament of silver; *patri,* a thin ring, with a broad back; *har-hamel,* a necklace of coins, rupees, or eight-anna pieces strung together; *tikka,* usually of gold, worn on the forehead; *dholna,* of silver or gold, an ornament worn like a locket; *chaunpkali,* another neck ornament; *hauldili* or *dilrakhni,* a kind of charm, of stone set in silver, worn round the neck, and sucked by the wearer; *tawíz,* usually of silver, a charm, a kind of philactery, worn on the arm, or more usually on the neck; and *jugni,* a small gold ornament, usually attached to a necklace.

The taste for European cloth has spread largely among the well-to-do and the extravagant, especially for long coats and for waist coats, but it is still little used by the common people. Men of position often wear a long *chogha* or coat with roomy sleeves.

The chief difference between Hindus and Muhammadans is that the former tie their turban in a different way. Few of the shopkeeping classes wear the dhoti or loin-cloth. The women dress their hair differently. The ordinary Muhammadan of either sex can be distinguished at a glance from the ordinary Hindu, but the difference is one of general appearance more than of dress. The main difference in dress is that Muhammadan women largely use blue stuff while the Hindus avoid this on religious ground, and adopt some other colour, usually red.

Houses.

Throughout the district the houses of the people are, as a rule, made of rough stones and mud cement; they are one storied, and are low in the roof, not being more than 10 or 12 feet high. They mostly consist of one large room about 36 feet long by 15 feet wide, with one or two other rooms built on, each about 12 feet square. A cattle-shed also is often built adjoining the main room.

Considering the great difference in climate and physical condition of the various parts of the district, there is a singular unanimity of pattern in the dwelling-houses of all four tahsils; those even of the highest parts of Murree being of much the same character and plan as those of the plains.

CHAP. I. C.
Population.
Houses.

The houses have always flat roofs; and it is somewhat remarkable that this should be so in the hills, where so much snow falls in the winter, that the roofs frequently give way under its weight, and are supported by rows of beams and uprights, made usually of pine wood in the hilly tracts and of *phula* or *tút* in the plains. The roof never rests on the walls, which would not be strong enough to bear the strain. Across the beams wooden rafters are laid, and over the rafters branches and leaves, the "dhaman" (*Grewia elastica*) being the shrub most prized for this purpose; and then the whole is well covered with earth mixed with chopped straw; it is then plastered with cow-dung and chopped straw.

The house is generally built at one side of an enclosure, surrounded by a mud wall; on one side, adjoining the house, will generally be found a cattle-shed, built much in the same way as the house itself; on the other, ranged against the wall of the enclosure, will be a raised earthen bench with the family *chúla*, or fire-place, earthen water-pots, &c., and on the fourth side of the square will be the entrance door, and possibly another rougher shed for cattle or goats, or for a store of grass and other fodder.

This enclosure is called the *sahn* or *vehra*, and outside this there is often another, surrounded by a low mud wall with thorns heaped over it, or of thorns only, for the protection of goats and sheep, &c., from wild animals.

The doors of the house itself revolve in wooden sockets, or are made like shutters, and are closed usually by hasp and padlock. They are made of deodar or pine; the door-ways in the hills are often elaborately carved and of handsome appearance. There are no glass windows, naturally, to be found in any of the houses of the agricultural classes, but their dwellings are generally kept very clean and comfortable. The floor is only of earth, but is kept clean and neat, being frequently hand-scrubbed with light clay and cow-dung. The furniture consists of a few beds (*chárpáis*), often, especially in the hills, of *shisham* wood roughly carved, and colored a bright red with a kind of lacquer, some spindles, also with some bright color about them, some low stools, and in one corner of the room, what corresponds to a cupboard, but which here takes the form of a circular tower about five to six feet high by three in width, made of dried clay, in which is kept a store of corn. Pegs for hanging things on, colored red, will also be found in the walls of most houses. This type of dwelling is found throughout alike in the *dhok*, consisting of one or two houses only, and in the village of a hundred or more.

Many of these enclosures contain a Persian lilac tree, or an acacia or *ber* tree, which gives them a more pleasing appearance. The peasants of the Ráwalpindi district are well housed. Each village has at least one *hujra*, corresponding to the *chopál*

further south. These are places of assembly where travellers are entertained, and where the villagers congregate to talk over their affairs, to smoke and to gossip. A *masjid* of some kind, too, is to be found in every village of any size, and all the larger ones boast of several, as every faction must have one for itself. Where factions run high, it is usual, not only for each faction to have its separate *hujra*, but also its separate *masjid*, in which each can go to pray against the other.

CHAP. I, C.
Population.
Houses

The houses are thrown together as accident may dictate, no attempt at regularity or symmetry being ever made. They are generally built on ground raised above the surrounding country, but not always, and contain a few buildings, such as a *masjid* and a *hujra*, a little superior to the rest, which impart a certain picturesqueness by breaking the monotony, and have a few Persian lilac, *ber*, or willow trees, with occasionally a *bor* (*Ficus Indica*) and more rarely a *pipal* (*Ficus religiosa*) tree. Taken as a whole, the villages, without being actually picturesque, are often neat, clean, comfortable and well-to-do in appearance, with a strong character of uniformity about them. The *haweli* of the *baniya* is only rarely seen dwarfing the humbler dwellings of the peasants.

Furnit

The cooking vessels used by the villagers consist of—

Katwi (*degchi*), a big vessel in which the food is mixed and cooked, to stir which a *chamcha* or *doi* (spoon) is used; *rakábi*, a saucer, used as a small dish; *tabákh*, an earthen vessel, used for putting bread on, and for mixing the flour with water before cooking; *sahnak* or *pátar*, larger earthen vessels of the same kind; *gharah*, earthen pot for water; *katora*, a small open vessel, usually made of mixed metal in this district; *thál* also of mixed metal, for placing bread upon when about to be eaten; *piála tás*, *bathal* or cup, of earthenware; *changer*, or *chakor*, a sort of flat open basket or wicker tray; *tind*, an earthenware vessel, a sort of small *gharah*; *tawa*, a flat iron dish or plate, upon which the bread is cooked (in *chapátís*, &c.); *karáhi*, also of iron, with two handles, of all sizes, used for confectionery; *kúza*, usually an earthenware vessel, used for washing the hands; *chaturi*, used for keeping milk, made of earthenware; *dola*, also of earthenware, used in milking, &c.; *galni*, an earthenware vessel, used for making butter, curds, &c.; *kulfi*, an earthenware vessel with a lid to it; and *battakh*, an earthen water-bottle, used by pedestrians, or by shepherds, graziers, &c., to carry their drinking water in.

The miscellaneous articles usually found in a *zamindári* house consist of—

Kúhli and *ghalota*, earthen cupboards used for storing grain. A *kúhli* holds up to 25 or 30 maunds; a *ghalota*, three or four maunds. The *kúhli* is usually a rectangular tower built in one corner of the main room, open at the top, with a moveable lid,

CHAP. I, C. Population.

and an opening in the side for taking out the grain. The *ghalota* is much smaller and is circular in shape.

Furniture.

Píri, a low square stool, some 6 inches high and 18 inches square, on which women sit; *chaki*, the flour-mill of two stones, one of which revolves on the other; *chúla*, the fire-place; *charkha*, the spinning wheel; *súi*, needle; *shhánni* or sieve for cleaning flour; *pakhi*, small fan; *tokra*, basket for various purposes; *uri*, a kind of bobbin from which the thread is spun; *ateran*, for winding thread on to before placing it on the bobbin or *uri*; *siláí*, a large iron needle; *nála*, a kind of reel; *tarakla*, a bobbin; *karandi*, an iron ladle for oil; *madhání*, a churn put into the *gaini*, and revolved to make butter; *belni*, a cotton gin; *tarakri*, scales; *hinda*, a low stool; *palang*, a bed; *balang*, ropes for hanging clothes on, clothes lines; *dira*, small lamp, *chirágh*; *chhaj*, a sort of shovel-shaped basket for sifting grain, or, when larger, for sifting refuse; *langri*, a mortar of stone or hard earthenware; *chattu*, a large stone mortar; *mohla*, a pestle made of wood; *chauki*, a square unbacked chair; *choha*, a measure of capacity, usually of wood; *paropí*, a small measure of the same kind; *bát*, a weight, usually of stone; *dabba*, a small round box of wood or brass; *surmedáni*, a small vessel for blacking the eyelashes; *shisha*, small looking-glass; *ucha*, a small pair of pincers for extracting hairs and thorns; *pirha*, a very low chair with a back, lacquered usually, and used at marriages and feasts; *matti*, a large earthen vessel for water; *jhávli*, an earthen vessel used for holding miscellaneous things; and the *hukka* last, but not least, completes the tale.

Disposal of Dead.

When any Musalmán dies, his relatives are summoned by the *nái* or other *kamín*, and the female relatives assemble and weep round the body. His male relatives in this district go themselves to dig his grave, and preparations are made for the funeral feasts.

If the deceased is a male, the Imám of the *masjid* bathes the body; if a female, the women of the family bathe and lay it out, and the shroud is prepared of white cotton cloth. Twenty-five yards are taken up in a man's grave clothes, which consist of a suit fitting to the body, and two long winding sheets.

When the grave is ready, the bed on which the body is lying is lifted by the near relatives and carried to the grave, those accompanying it repeating the *Kalma* as they go, having prepared themselves as for prayer. At some distance from the grave-yard the bed is set down with its head to the north and its feet to the south. The Mullán stands on the east side and turns his face towards Mecca, and the by-standers range themselves in three rows behind him. Prayers are then said, and charity is collected from Rs. 3 to Rs. 40 in cash, or grain from 4 to 20 maunds, with copies of the Qorán. The Qorán is first passed round from hand to hand,

CHAP. I.
Population.
Disposal of Dead.

and then the money, grain and copies of the sacred book are distributed. The charity thus collected is known as the "*aská*." It is divided into three shares; one share goes to the *imám* of the Masjid who leads the prayer, one share to the *kamíns* or village servants, and one share to the other Mulláns, Darweshes and the poor who may be present.

After this the body is taken to the tomb, and lowered into it. The grave is always made north and south, and the head is placed north and the feet south, the face, as far as may be, being turned towards the Qibla and Mecca; the winding clothes are then loosened and the tomb is closed with stones and filled in with earth and gravel, made into a mound. One stone is set up at the head and a smaller one at the feet, and thorns are placed over the grave to keep off animals. The *imám* then stands at the west of the grave and exhorts the people that all must die, and then gives forth the call to prayer or *báng*.

Then the relatives and others who have come in are fed by the deceased's relatives. After four days charity is again dispensed' and for the next four Thursdays the Mulláns are fed. After forty days charity is dispensed, and thereafter one day in each year is fixed for a commemoration feast, to which the relatives bring contributions with them, the Mullán and *imáms*, any strangers who may be present, or any mendicants who may ask for it, are fed, and as much as twenty maunds of flour and ten maunds of meat are sometimes consumed. These funeral feasts and expenses are nearly as great a strain upon the resources of the people as the expenses of their weddings.

Among Hindus no food is cooked on the day the death occurred in the house, and the house remains in mourning for eleven days, while the funeral ceremonies (*kiria karam*) last. Then the clothes and metal vessels in the house are purified and the earthenware vessels broken. The body of the deceased person is cremated in the usual way and the ashes sent to the Ganges at the first suitable opportunity.

Games.

The monotony of agricultural life is relieved by attendance at marriage and other domestic celebrations, and by occasional fairs throughout the district. Games of various kinds are played, though the extent to which they are indulged in varies a good deal in different parts.

The boys in the villages play various games, some of them resembling those played by English boys.

Lambi-kaudi is a kind of prisoner's base; *chhappanchhot* is the same as hide and seek; *kanhári-tala* corresponds to "tip-cat;" *chinji-tarap* is hop-scotch; and there are various other games of a similar kind.

CHAP. I. C.
Population.
Commencing.

The men play *bhir-kaudi*, a sort of rough prisoner's base, which is played by large numbers, sometimes in competition by the men of various villages. This is played at all times of the day when not too hot.

Bugdar uthána or *tarár-ultán*, consists in the lifting of heavy weights; *mungli-pherna* is the working of heavy Indian clubs; *bíni-pakrna* is a kind of wrestling in which the athletes seize each other by the wrist only; and *sammi*, *lodhi*, *bhangra*, and *dhamál* are usually practised at weddings, and consist of a kind of dance.

Tent-pegging and lime-cutting are amusements of the wealthier and are not commonly indulged in. Kaudi is the popular game.

Fairs.

The principal religious gathering in this district takes place at Núrpur, a small village at the foot of the Márgalla hills, nine miles north-east of Ráwalpindi city. Several springs gush out of the hills here and form a pure fresh stream of water. Here there is a shrine of a Musalmán saint, called Barri Latíf Sháh, which is visited by large crowds at the time of the fair or *mela*. Barri Latíf Sháh is said to have been born in Gujar Khan Tahsíl, then to have gone to Sherpur in Hazára and married there, and leaving that place for some reason, to have lived alone for 24 years in a forest in that district. There is a shrine to him there also. Coming through the forests, he came to the spot, then barren, where Núrpur now stands, where he settled, associated four disciples with himself, and started a *mela* or fair during his own life-time. Latíf Sháh got the name of Barri from his constant wanderings in the forest. The Emperor Bahádur Sháh of Delhi is said to have visited Núrpur in the saint's life-time, when some of the buildings were erected. The fair now takes place on each Thursday in the month of Jeth (May—June); originally in Latíf Sháh's time it was in December. Many persons come to it from Peshawar, and in Phágan (February—March) the *fakírs* of the shrine in their turn visit Pesháwar, where they are much thought of.

About 20,000 persons attend the fair annually, among them being a large number of *nátch* girls. The last Thursday of the month of Jeth is the chief day of the fair, which is attended by many Hindús as well as Muhammadans. Another fair takes place at Saidpur, a very similar village at the foot of the Márgalla range with beautiful springs of water. This is a Hindu fair, the shrine being known as Rám Kund, and is attended by about 8,000 persons annually. There are here four springs known as Rám Kund, Síta Kund, Lachman Kund and Hanumán Kund. Rája Rám Chandar is said to have come to this spot in his wanderings with his companions, for which reason the Hindús regard the place as sacred. The fair takes place in Baisákh (April—May).

There is another well known shrine in Ráwalpindi itself, that of Sháh Chirágh, a Sayyad, which is the scene of a religious fair.

Sháh Chirágh is said to have been born in Saiad, tahsíl Gujar Khan, some 270 years ago, and to have come to Ráwalpindi in his old age. Every Thursday many persons, both Hindús and Musalmáns, visit the *khankah* or shrine, but the four Thursdays of the month of Sáwan (July—August) are the days when the attendance is largest. On the last Thursday of that month there are nearly 10,000 visitors on the average. These are the three principal fairs of the Ráwalpindi Tahsíl. **CHAP. I, C. Population. Fairs.**

In Gujar Khan there is a fair at Sangni, attended by some 2,000 persons. This is a Hindu gathering, and takes place in Chet (April). There is a Muhammadan fair at Rukia in the end of Jeth (7th June) at the shrine of one Sháh Mír Kalán attended by about 4,000 persons. There is a larger Hindu gathering at Kurnáli near Sukho, on 1st Baisákh, at the shrine of Bába Mohan Dás, a well known *fakír*, who used to live in a cave in the ground dug out by himself. He died only a few years ago, and the fair has been established since his death, but is now attended by some 10,000 persons annually. It is in a considerable degree taking the place of the Saidpur Fair.

In Kahuta Tahsíl there are a number of small fairs, which take place at various intervals, but none of them are of great importance. At Dera Khálsa there is an annual fair at the shrine of Sáin Ghulám Sháh, which takes place on the Bárawafát, attended by some 3,000 persons. Human beings and animals bitten by mad dogs or jackals are brought here and are supposed to be cured by drinking water placed in vessels on the tomb.

There are no fairs of any importance in Murree Tahsíl.

Names an Tiltes.

There is nothing peculiar in the personal names in common use in the district. Gakkhars occasionally have very highsounding names. A common conceit is to give younger sons names rhyming with that of their elder brother. The usual abbreviations, Dulla, Ditta, Tája, Mandu and the like are very common.

Of titles the most highsounding is Rája, which is reserved for the leading Gakkhar families. The rank and file of Gakkhars are addressed as Mirza. A few of the more prominent Janjuas and Rájpúts are sometimes accorded the title of Rája. Mallik is the title given to the headmen of the Awáns. "Chaudhri" is accorded to Jats, Gujars and some of the Rájpúts. The Gujars also use the title "Mehr." "Mian" is a common title of Rájpúts and Jats. The democratic hillmen eschew titles. Among Hindús the usual titles are in vogue.

CHAPTER II.—ECONOMIC.

Section A.—Agriculture.

CHAP. II, A.

Agriculture

Area of cultivation.

The area of the district is divided as follows :—

	Per cent.
Cultivated	41
Culturable waste	5
Government forests	22
Other unculturable waste	32

Soil classification.

The land under cultivation was classified as follows at the recent settlement :—

Chahi.—All lands irrigated by wells.

Nahri.—Lands irrigated by canals.

Abi.—Lands irrigated by springs, or otherwise than by wells or canals.

Sailab.—Lands flooded by streams or which by the proximity of water are naturally moist.

Lipara.—Lands adjoining a village site and enriched by the drainage of the village site, or by the habits of the people, or land which is habitually manured, and is of excellent quality. Such land is generally double-cropped.

Las.—Lands lying in a depression and receiving drainage from other lands, or lands in which embankments have been built to retain drainage. Such land is always of excellent quality.

Maira.—Ordinary barani lands not included in any of the above classes.

Rakar.—Barani lands which are so stony, or sloping, or unfertile that they cannot be classed as maira.

At Revised Settlement both nahri and abi lands were included together under the name of nahri The only canals in the district are in the Ráwalpindi Tahsil. They are private water-cuts taking out from the Haro River in the extreme northern corner of the tahsil and irrigate only four villages on the banks of the Haro, in what is known as the Panj Katha tract. The same irrigation system waters a corner of the Khanpur Circle in the Haripur Tahsil of Hazara and extends into the Nalla Circle of Tahsil Attock.

Soil distinctions.

Apart from the obvious differences between irrigated and unirrigated, manured and unmanured soils, the main distinctions between the soils depend on the nature and position of the underlying rock. For instance in Gujar Khan the whole tahsil is composed of sandstone, and soils are good or bad according as the sandstone

CHAP. II, A.

Agriculture

Soil distinctions.

strata are deep down or crop up to the surface. There are four recognized soils in the tahsil, known locally as "chitta", "kala," "retak" and "retli." "Chitta" is a clean light loam, and is accounted the best soil in the tahsil, especially in the tracts of light rainfall. "Kala" is a good loam, hard and containing more clay than the "chitta." In the rainy parts of the tahsil it is accounted as good as "chitta," but it needs more moisture. "Reatk" is a hard red soil, impregnated with mineral salts. Generally it is a poor soil, not because it is infertile, but because more moisture is needed than it generally gets. "Retli" is a light sandy soil. In the extreme west the sandy soils give more regular crops than any other, but good sandy soils are rare. Most are shallow, with rock lying close beneath. On such soil the rainfall must be not only plentiful, but frequent, for the crops to come to maturity.

Similarly most of the soils of the Rawalpindi Tahsil derive their characteristics from the rocks upon which they lie. In technical language, the soils are generally sedentary and rarely alluvial or transported. The quality of the soil varies very widely through every degree of fertility, colour and consistency. The characteristic of the soil of the Kharora Circle is the kankar with which it is filled. The uneven sharp gravel lets moisture through readily, and does not retain it as round gravel will do. As a result water drains away rapidly and the soil is always dry and arid, while after rain the surface cakes while drying and chokes the tender shoots of the growing crop. The Kharora soil gives heavy crops in years of frequent rainfall, but the cropping is precarious, and yields are but seldom large. At the opposite end of the scale to the gritty Kharora soil is the black clay loam of Rawalpindi and the adjacent villages. This soil is locally called "sev" and was classed as sailáb at last settlement, although far away from any torrent. It has now been classed as maira. The sev land is a stiff dark clay loam which yields heavy and regular crops. It is mostly cropped in the kharif with fodder crops, which are grown for sale in Rawalpindi. Except among the light sandstone hills in the east and south-west of the tahsil soils are distinctly deeper and more earthly than in the Gujar Khan Tahsil. Great regard is paid to colour in the soil, mainly with reference to heat absorption. Other things being equal, the lighter in colour the soil, the slower it heats in sunshine. Red soils are the least admired as they heat rapidly, and the red colour is generally an indication of the presence of mineral salts. Limestone soils are better than sandstone soils, and the soils overlying the hard stone of the north of the tahsil are better, and usually deeper, than the soils formed on the soft sandstone of the south and east. The degree of admixture of sand in the soil is, of course, of primary importance in determining the value of the soil. *Primâ facie* a sandy soil in a country like this of ample rainfall is not so fertile

CHAP. II, A.
Agriculture
Soil distinctions.

as a loam or even clay loam soil, but if the sandy soil be deep and light in colour, so as not to heat too rapidly it will retain moisture and give heavy crops even in years of scanty rain. In the east of the tahsil the soils are sandy and red in colour, but here the rainfall is more plentiful than in any other part, and the soil being generally deep gives good crops. In the Pothwar tract only are found sandy and shallow soils, and these are no doubt the worst soils in the tahsil.

The principle is the same in the Kahuta and Murree Tahsils.

The Kallar plain has been enriched by the detritus from the surrounding hills, but with this exception the soil and the rocks below are the same. The soil of the Kallar plain is a light, deep loam of great fertility and as good as any soil in the district. In the rest of the Kahuta Tahsil all the soils are sandy and very often extremely shallow. The rainfall being copious, the colour and depth of the soil is of less importance than in plain tracts. The rainfall is sufficient to grow a kharif crop in even shallow soils, and constant enough to prevent the soil drying up. In the middle of the Kahru Circle the sandy soil is full of boulders, and in some villages rabi crops can hardly be grown at all. Throughout the hills of Kahuta the soil is sandy and generally red. It is sometimes remarkably shallow. Fields are often embanked not so much to retain moisture as to prevent the rain from washing the soil entirely away. On the great table-land of Narar it is common to see bare patches of white rock which once were fields, and where the scratches on the rock show how the plough has cut through the soil, and grated on the hard rock below. Further north the soil improves and becomes an earthy loam. The soil of the Kotli spur, though less sandy than that of the Kahuta hills, is inferior to the rest of the tahsil, but the soil of the Patriata and Murree spurs is nearly all good. Here the soil is deep and earthy, and though gritty and dark in colour, is capable of yielding good crops. In very few places is the soil in the hills of a quality such as would be considered good in the plains below, but with the superior rainfall and manure of the hills high class crops can be grown. The soil of the Murree spur is the best in the tahsil. In the low hills of the Murree Tahsil along the Rawalpindi border the soil is light and sandy as in the greater part of the Kahuta Tahsil.

The following table shows the proportion of land in each of the principal classes :—

Tahsil.	Chahi.	Nahri.	Abi.	Sailab.	Lipara.	Lus.	Maira.	Rakar.
Gujar Khan	·3	...	...	·3	8	3	84·6	4·1
Rawalpindi	·8	·8	·4	·1	8	2	75	12
Kahuta	·2		·8	...	18	2	66	13
Murree	...	...	·5	...	34	...	51	10

CHAP. II, A. — Agriculture. System of cultivation-sailab.

The sailab lands are situate along the banks of the torrents, where the bed broadens out or the banks sink, or for any other reason the flood water is able to spill over culturable lands along its banks. In Gujar Khan most of the recorded sailab lands are in the bed of the Kanshi torrent, though there is a little on the bank of the Jhelum under the high rocky hills through which the river forces its way. In Rawalpindi Tahsil much of the sailab lies along the banks of the Soan. As a general rule lands recorded as sailab are poor and sandy, certainly not better and often not so good as ordinary maira land above the banks. It is extremely difficult to determine how far the flood level extends, but the various streams do not, as a rule, spill over their banks at all. The main streams have very wide channels, which shrink to a thread of running water in the dry season, only filling with water in the rains, but not spilling out. All the streams carry sand in suspension, and water, where it spills out, does more harm than good. The lands now recorded as sailab are certainly not better than average maira lands and not so good as the maira lands adjoining them, which, while benefiting from the percolation of the streams, are too far away to be classed as sailab. The direct action of the streams, whether in cutting away land or depositing sand, is always harmful; their indirect action in keeping moist the maira lands along their banks and providing sub-soil water in which wells may be sunk, is of the greatest importance to the agriculture of the district. The cropping on sailab lands does not differ from the cropping on maira lands, which will be described later, and it is seldom indeed that flood waters prevent the successful growth of kharif crops when their turn comes in the ordinary course of rotation.

Lipára.

The method of cultivation of *lipára* is not uniform throughout the district, and varies even within tahsils *Lipára* which corresponds to "hail" in Jhelum District usually lies round the village site where it receives the benefit of the village drainage and sanitation or is otherwise manured. The classification of lipára is exceedingly difficult. The easiest method of distinguishing it from maira is by the method of cultivation, which, throughout the greater part of the district, is radically different on the two kinds of soils. The ordinary two years' course of cropping, or two successive crops followed by a year's fallow, which is known in the old revenue literature as "dofasli dosala," does not obtain on lipára lands. In this respect however, the practice is not uniform.

In Gujar Khan Tahsil "*bájra*" is by far the principal crop on *lipára* soil, having nearly three times the average matured area of wheat, which is the second crop. Yet the mode of cultivation of *lipára* lands in the south-west corner of the tahsil differs materially from that prevailing in the rest of the tahsil and this is a difference founded on differences of agricultural conditions. In the whole of the tahsil, except the west tract, bájra is sown on lipára lands every year

CHAP II.A. — Agriculture — Lipára.

and is the staple crop. Rabi crops are sown only after the *bájra* has been cut, and only if the autumn rainfall is favourable. The land is prepared for the kharif crop as soon as the winter rains fall, or if there has been a rabi crop then as soon as the crop is off the ground. The land is heavily manured and ploughed as often as the state of moisture and the zamíndárs' cattle will allow. There is no limit to the number of ploughings, and a good zamíndár gives 8 or 10 or as many more as he can. *Bájra* is then sown, but sometimes maize or *jowár* or cotton take its place. Maize is never sown except in the best land. *Jowár* is a favourite crop only when the proximity of a town or of the Grand Trunk Road offers a good market for fodder. A small area is sown with cotton when domestic needs and the desire for new clothes demand that the stock of yarn shall be replenished. If there is no special reason for selecting some other crop, *bájra* is always sown. *Bájra* bread, though not so pleasant to the taste as wheat, is a favourite and very sustaining food, while the stalks feed the cattle for more than half the year. It is a crop grown exclusively for the zamíndár, who does not sell either the grain or the stalks if he can help it, or unless he has more than he needs for the whole year. When the *bájra* or other crop is cut, the land is ready for a rabi crop without any ploughing. As soon as the autumn rain or even the early winter rain falls, the drill is drawn through the land and wheat or barley or *sarshaf* dribbled in. Some *lipára* land bears two crops every year, when the soil is good, manure abundant and the rainfall copious; but generally three crops in four harvests are the most that the land will bear, and the average is a little less even than that. In the sanctioned definition of *lipára* it is described as generally double cropped. This is not strictly correct; the distinctive feature of *lipára* cropping is that a kharíf crop is grown every year and a rabi crop is snatched off the land about every other year, if the state of the rain and the vitality of the soil renders it possible.

In the West tract the system of cultivation is quite different. The ordinary rotation of crops and fallows observed on *maira* lands obtain also on the *lipára*. After the land has been ploughed and manured the rabi crop, generally wheat, begins the cycle. When the rabi crop is off the ground the kharif crop is sown not with a drill, but by scattering the seed. Here again the preference is given to *bájra* over other kharif crops, but other crops also are sown. When the *bájra* is cut, the land lies fallow for thirteen months until the spring seed time comes round again. Sometimes *táramíra* seed is scattered in the *bájra* when the plough is driven through the sprouting plants, and after the *bájra* has been cut, the *táramíra* may spring up among the stalks. Maize is not grown in this part of the tahsil, and cotton demands fallow land and cannot be sown after the rabi harvest. Under this system of cultivation only two crops in four harvests can be taken, as the occasional

catch crop of *táramíra* hardly deserves to be counted, and indeed it generally fails when the *bájra* ripens thickly. CHAP. II, A. Agriculture Lipára.

The essential difference in the mode of cultivation of *lipára* lands in the West tract and in the rest of the tahsil appears to be based mainly on the difference of rainfall in different parts of the tahsil. Manure is valuable in proportion to the amount of moisture available. In the main part of the tahsil all manure is carefully hoarded and carried out to the fields. Wheat and rabi crops generally cannot stand much manure unless the rain is very copious, and if the rain partially fails the crops are burnt up in the ground. There is not the same danger with *bájra* and by taking a crop of *bájra* first, a good rabi crop can afterwards be obtained on the same land, while if wheat were first sown on heavily manured land there would always be a chance of a premature ripening which would spoil the crop both in grain and straw.

The *lipára* cultivation of the West tract does not demand so much rain or so much manure. Here on the Chakwál border holdings are rather larger than in the rest of the tahsil. The cultivation is not less careful, for Gujars are the principal owners; but it is different. Manure is not priced so highly and much of it is burnt for fuel. Indeed the soil does not demand much manure, as the rainfall is not sufficient for heavy manuring and without a great deal of manure a rabi crop could not be taken after *bájra*. The cultivation of *lipára* lands as practised on the Chakwál border is much less profitable than the forcing methods and heavy manuring which find favour elsewhere, but it is much safer and more suited to the conditions of the tract.

The system of cultivation of *lipára* lands in Rawalpindi Tahsil is the same as that prevailing in Gujar Khan Tahsil with differences only in detail.

There are exceptions in a few scattered individual villages, or by a few owners, but the universal rule is that a kharif crop is taken every year and followed about every other year by a rabi crop. The principal difference from Gujar Khan is in the universality of this rule, and in the fact that bájra is not the exclusive kharif crop. Maize is a much more valuable crop than bajra both in yield of grain and straw, and in the north of the tahsil wherever the rainfall is sufficient and the soil good, maize entirely takes the place of bájra on manured land. Maize is a more delicate crop than bájra, needs more manure and more rain, and is not so good to eat, but the yield is very much larger than that of bájra, and wherever it can be successfully grown it is grown. In the Kharora Circle there is not much maize and bájra bulks larger in the crop returns. Whether a rabi crop be sown or not, after the kharif has been taken off the ground, depends mainly on the winter rain. If the rain falls early and the land has not been exhausted, a rabi crop is sown in the stalks of the kharif crop, without any previous ploughing.

CHAP. II, A. Agriculture Lipára.

Except when the land is very rich and lies near the village site with abundant manure, no attempt is made to take a rabi crop oftener than every other year. Barley is a much more important *lipára* crop than in Gujar Khan, and in the Kandhi Soan the area under barley is half as much as that under wheat, while in the Kharora Circle the barley equals the wheat. As illustrating the uncertainty of the rabi *lipára* crop as compared with the kharif crop, and its dependence on the winter rain, it is interesting to note that the rabi cropping in the Kharora Circle is much below that of the Kandhi Soan Circle, while in the kharif there is but little difference.

In Murree and Kahuta Tahsils the cultivation of *lipára* differs materially in the hills and in the plains, and it is necessary to discuss the subject separately for those two tracts. The classification of *lippra*, always difficult, is in the hills doubly difficult, owing to the fact that manure is spread over a wide area and that there is no absolutely distinctive difference between the cropping of manured and unmanured soils. Everywhere the kharif crop is the principal crop and the rabi is of secondary importance. On *lipára* soils, both in the Murree Tahsil and in the Pahar Circle of Kahuta, kharif crops are sown in an average of 90 acres per annum out of 100 acres of cultivated area. It may be stated that kharif crops are always sown first, and of kharif crops, maize has the overwhelming preponderance. Bájra is only grown in the low villages and, even in them, only in the outlying fields, where poor soil and scanty manure forbid the hope of a good maize harvest. In the hills ploughing is of small importance. Two or three ploughings are all the land gets and all it needs. If the land be ploughed too much, there is danger of the soil being washed away in heavy rain. Indeed in the shallow sandy soils of the Pahar Circle ploughing is of little use, and the soil is ever threatened with two dangers. A continued break in the rains will cause the shallow soil to dry up, while excessive rain water-logs it. As we go higher and higher up the hills double cropping on *lipára* land becomes less and less common, until in the high hills near Murree there is hardly any double cropping at all. The reason is not that the soil will not bear two crops, but that the seasons do not admit of two crops. Wheat lies under the snow for several weeks, or months, and does not ripen till late in June, long after the maize has been sown. Lower down wheat or barley is taken after maize whenever possible, especially in the best manured lands close to the village hamlets. Land which bears a rabi crop after maize must be manured, and is always correctly classified as *lipára*. In the Kahru and the Kallar Kahuta Circles the cultivation is somewhat different. In these circles, as in all *lipára* soils throughout the two tahsils, the kharif is the principal crop on *lipára* land and the rabi only follows when conditions admit of a rabi crop being taken. In the north of the Kahru Circle, where the villages get the benefit of the hill rains, without the hill cold

and snow, there is much *lipára* land which bears maize and wheat or barley in succession year after year. These lands are more highly cropped than any other unirrigated lands in the district. Here again manure is everything and cultivation of small importance. The *lipára* of the north part of the Kallar Kahuta Circle much resembles that of the Kahru, but the rainfall is not so copious, nor is manure so abundant. In the south of the Kallar Kahuta Circle the *lipára* cropping is in all respects the same as that of the best parts of Gujar Khan. Bájra is here the principal crop, grown with great care and abundant ploughing. Every other year or so the bájra is followed by wheat and barley, grown alone or mixed with sarshaf. The rains are not so steady as further north, but the soil is much superior and the cultivation far more laborious.

CHAP. II.A.
Agriculture
Lipára.

There is no las in Murree and practically none in the Pahar and Kahru Ilakas of Kahuta. Elsewhere the classification of las is a matter of much difficulty and uncertainty. The true las field is made by throwing an embankment across a sloping depression in the ground and levelling the field above it. The newly made field held up by the embankment receives surface drainage from the lands around, and for so long as the embankment lasts may give very valuable crops. Where the country is everywhere sloping and uneven and where banks are everywhere necessary to control surface drainage, it is not easy to discriminate between embanked fields which are las and those which are ordinary maira.

Las.

The maintenance of the embankments is a constant labour. The earth scoop pulled by bullocks is the invariable means of building and repairing the banks. Repairs are constantly necessary and go on all the year round. If the bank breaks, the zamíndár loses his labour and often also his field. Banks are not so large and imposing as in Attock District, but a good las field, though greatly valued, is a constant trouble and expense. All las is not of equal value. Much of it has been hewed out of the precipitous sides of ravines, under the pressure of an ever growing population, and except that continual labour is of no account to the hard working owner of a few kanals of land, such land hardly repays the cost and trouble of cultivation The most characteristic feature of true las fields is their liability to be washed away in times of heavy rain and their consequent insecurity. Yet while the embankment lasts las fields are more valuable than the average maira fields. Large las areas in a village indicate only that the village is cut up with ravines, and not that the lands are better than in villages where there is no las. They are an indication of insecurity and not of fertility.

As a general rule "las" lands tend to be cultivated for the rabi harvest every year. Where the "las" fields lie low or the bank is large, it would not be possible to grow kharif crops without danger of flooding and the land is kept for the rabi exclusively. This is,

CHAP. II. A. Agriculture. Las.

however, but a tendency, and there are large areas of "las" lands, which are not in danger of flooding, and which are cultivated exactly like maira. It is certainly not correct to state, as was stated at last settlement, that las lands generally are sown with wheat every year. There are las lands which grow wheat every year, but they are all poor lands. Where fields have been hewn out of the sides of ravines, and have to be cleared out and strengthened in every rainy season, it is impossible to grow kharif crops, and a crop of wheat is taken year after year. There are many such fields scattered among the ravines which border the Wadala torrent, where wheat is always grown, but such fields are not accounted of value and are very expensive and troublesome to keep in order. The ordinary las field, which is not liable to flooding and to sudden destruction, is cropped in the same way as ordinary maira fields. A rabi crop is taken first, nearly always wheat, and is followed by a kharif crop, and afterwards the land lies fallow for a year. Even here there is a tendency to take an extra wheat crop, now and then. Wheat is much the most important crop sown on las land, and it may be asserted that wheat is always sown. If any other rabi crop is sown, it is sown mixed with the wheat. Bájra is, as always, the principal kharif crop, but leguminous crops do very well in las land, besides refreshing the soil for the next wheat harvest. Mung is the principal, as it is the most valuable leguminous crop, but moth is also sown in the more inferior land. The wheat in the rabi and the leguminous crops in the kharif are the important points of difference between the cropping of las and maira soils.

In Kallar Kahuta Ilaka the cropping on "las" is somewhat inferior to maira, yet the area under wheat is much larger on "las" than on maira. As a general rule las is not considered more profitable than maira and this fact is marked almost invariably in the "báchh" by a single rate having been put upon both alike.

Maira.

Except in the hilly portions of the district the general rule of cropping on maira land is that known as "dofasli dosala." A rabi crop is followed by a kharif crop, and the land then lies fallow for a year until the rabi sowings. If this rule were invariably followed, the sown area in the kharif and in the rabi would be the same, but there is always a tendency to increase the area under the more valuable rabi cereals or to snatch a bye-crop of taramira.

North and south of the Soan there are some differences in the practice of the "dofasli dosala" rule. South of the Soan *tárámíra* is often scattered on the ground in the growing *bájra* and ploughed in among the plants, or occasionally it is sown mixed up with *bájra* seed. If the *bájra* fails, the *tárámíra* may help to console the zamíndár for its loss. When rabi sowings are in progress, *tárámíra* is scattered over the field banks and in broken ground or any place where no other seed will grow. The expense is small, and timely winter rain will ensure a plentiful crop of fodder.

CHAP. II. A.
Agriculture
Maira.

North of the Soan leguminous crops are hardly grown at all. More fodder is grown and this is sold in Ráwalpindi. With regard to the growth of fodder, there is one important characteristic of the villages near Ráwalpindi on the north, which demands special mention. The black soil near Ráwalpindi, in what is known as the Khanna plain, is cropped every year with *charri* or *jowár* which is sold in the city. In such villages hardly any wheat is grown, but the land, whether manured or unmanured, bears *charri* every year. There are several villages in which *charri* forms 60 per cent. to 70 per cent. of the annual cropping. This land is locally known as *sev* and much of it was recorded as *sailáb* at last settlement. In villages of this kind not nearly enough grain is grown for the food of the people, but they live by dealing in fodder and buy their food grains in the city. These villages also are every cold weather the scene of cavalry manœuvres, which are facilitated by the unusual method of cropping in vogue, and which, in their turn, are possibly not without some effect in influencing the procedure of fallowing the lands in the rabi. However that may be, it is certain that the villages profit much more from the manœuvres than they suffer loss. Except in these few villages, *bájra* is the principal kharif crop. In the Pahar Circle of Kahuta and in Murree Tahsil the "dofasli dosala" system does not obtain at all. Towards the hills the kharif crop becomes increasingly valuable and the rabi crop less valuable. Here there is much land capable of growing crops in the kharif which would have no chance of retaining its moisture through the long dry periods of the winter season. The steady uniformity of the maira cropping of the plains disappears. The only rule of cropping which emerges from the varying practice of every field is that a kharif crop should always be taken and a rabi crop whenever possible. A kharif crop is taken first. If the circumstances are favourable a rabi crop also will be taken and then the land will lie fallow, or it may be that the land needs a rest and that it will be left fallow on the chance that the rains of the next winter will be good enough to allow a rabi crop to be taken. In the Pahar and Kahru Circles the large proportion of miscellaneous crops in the kharif deserves notice. The miscellaneous crops are mostly inferior pulses, especially so in the Kahru Circle, and when the area under moth, mung and mash is also included, it will be seen that the area under pulses often exceeds that under wheat.

Rakkar.

Only the worst land is recorded as *rakkar*. It is always very bad land, stony or sloping, or sandy or tainted with *kallar*. The character of the cultivation varies with the quality of the soil. As far as possible the tendency is to follow the rotation adopted on *maira* lands, but when the soil is very bad only one crop is taken in a year. *Bájra* does not flourish on such soils and *mung* or more frequently *moth* take its place. Wheat is the favourite crop and is grown whenever possible, but is not always followed by a kharif

CHAP. II, A. Agriculture

crop. On the worst land nothing is grown at all but the hardy *tárámíra.*

Rakkar.

The proportion of *rakkar* is much higher in Kahuta and Murree than in the other tahsils. The large rolling villages of the Kahru Ilaqa have all been classed as "rakkar," except where diligent levelling and embanking have converted them into good lands. Consequently, while in the rest of the district rabi crops preponderate over kharif crops on the worst lands here the position is reversed and the worst lands are kept for the kharif crops. Tárámíra, which is the rakkar crop of the plains, does not appear. The characteristic cropping is inferior kharif pulses. Moth is the commonest pulse in the Kahru and Kallar Kahuta Circles, but in the hills mash takes its place. In the Kahru Circle the pebble ridges grow little but moth and kulath and those only in occasional years. Little ploughing is done in rakkar land and little ploughing is needed. It is generally thought sufficient to plough once, then to scatter the seed and plough it in. On such lands the yield is small and nothing but the pressure of necessity causes them to be cultivated. In fact much more damage is done to undergrowth and grazing in clearing these lands, than benefit accrues to the cultivator.

General characteristics of cultivation.

The Gujar Khan zamíndárs are the best agriculturists in the district.

With few exceptions they are laborious and careful cultivators. Malliars here as elsewhere are the best, but a Malliar is at his best growing garden crops on a well and for *báráni* cultivation is not better than other men. Of the rest Gujars and Awans rank highest and Ghakkars and Sayyads lowest. Ghakkars and sayyads pride themselves on their indifference to agriculture but the pressure of poverty is forcing even them to habits of more industry. The life of a zamíndár, who would wrest from the average holding of four or five acres a living for himself and his family, is one of unceasing toil and the most careful thrift.

Sowings for the rabi crop begin at the end of Assu (September-October). The best days for sowing are from 17th to 20th Assu. These are known as the *dhaya* or two-and-a-half days. When the *dhaya* comes round the whole village turns out and ploughing goes on for as long as the men and cattle can work. Rabi sowings are nearly always done with the drill. When the *dhaya* has passed, sowings stop till 25th Assu and then go on till the end of the month, and into the next month of Kátak. The early sowings are deemed the best, as the moisture is fresh in the ground and the plants sprout at once. Good winter rains are, however, essential for early spring wheat and the later sowings, if less productive, are hardier. For this reason the *dhaya* sowings are confined to the Pothwár and Khuddar tracts and are not favoured in the west tracts. Where the rabi crop is sown among stalks (*wadh*) of the

CHAP. II, A.

Agriculture

General characteristics of cultivation.

kharif (a process known as *wadh ká*) the date of sowing is much later. It necessarily follows that *lipára* sowings in the centre and east of the tahsil are always later than in the west and more seed is used. As a general rule there is moisture enough for rabi sowings, and unless the soil is hard and baked, the zamíndár sows all the land which is prepared for the rabi and trusts that the seed will germinate and the winter rains save the crop.

After the rabi sowings are over there is little to be done to the land till the winter rains fall and ploughing begins. December and January are slack months, and if there are no banks to repair or fields to be levelled the men and cattle have plenty of leisure. Large numbers of men go off to find labour on roads and railways; even the Simla Railway has been providing many of them with employment. At the end of the sowing season the cattle are weeded out and the poor ones are sold to save their winter keep. Sowings may, however, begin again in December or even in January if early rain falls. Barley and *sarshaf* are the favourite grains for late sowings, but wheat also is sown. loughing begins in Magh when the winter rain falls and the careful zamíndár does not count the number of his ploughings, but ploughs as often as ever he can. Generally men turn out for ploughing in bands and plough one another's fields in succession. The men and the cattle alike work better in company. Rabi crops need little weeding. The most that ever is done is to dig up the *bhagát* or onion weed from the ground. As a matter of fact weeds do not spring up fast and weeding is not necessary. When the harvest time comes round the whole village, man, woman and child, turns out sickle in hand. After the harvest, ploughings begin again, whether the land is to be cultivated in the kharif or to lie fallow till the rabi. Sowings for all but the cotton and late rabi crops begin at the end of Har (June-July) and are carried through as fast as possible. As in the rabi, the good days for sowings are few and no pains are spared to complete the work before the best time has slipped past. Except on *lipára* lands, most of the kharif sowings are in the stubble of the rabi crops, after of course the stubble has been ploughed up. Crops so sown are known as *narka*, *nar* being a wheat stalk. Unlike the rabi sowings, the kharif sowings are made broadcast and not by drill. The use of the drill is to get the seed well down into the ground and keep it moist, but the summer rains are sufficient to render this precaution unnecessary. Kharif crops get more weeding than rabi crops, but the weeding is by plough and not by hand. It is known as *sil* and is done by driving the plough up and down among the growing plants. It is in the *sil* that *tárámíra* sowings are generally done. In Bhadon (August-September) and Assu (September-October) ploughings for the rabi begin again and continue with energy until the time for rabi sowings begins again. The clod-crusher is now passed over the land worked up to a fine

CHAP II.A.

Agriculture

General characteristics of cultivation.

tilth for the rabi seed. On the whole the industry of the cultivator, the laborious thought which he gives to every detail of his work, the careful thrift with which he hoards his manure and his fodder, and the narrow monotony of his daily struggle for existence extort the admiration while they invite the sympathy of every receptive observer.

The Ráwalpindi zamíndárs are not so industrious or so thrifty as the peasantry of Gujar Khan, but the standard is a high one and they are by no means lazy. The land gets all the cultivation it needs, and if in the embanking of his fields, in the number of his ploughings, or in the laborious manufacture of new cultivation in unpromising places, the Ráwalpindi zamíndár falls below his neighbour, it is because the pressure of necessity is not so severe. Too much industry is not considered good form, and a man of high family who works early and late on his fields may find that the disapproval of his tribesmen takes a practical and much dreaded form, when he tries to marry his daughters or to get a match for his son. The Malliars and Gujars and the tribes, generally, who do not aspire to be considered Rájás, are as industrious as they always are. The chahi and abi cultivation, especially when in the hands of Malliars, could hardly be improved. It is in the number of the ploughings, in the amount of weeding and, above all, in the levelling and embanking of the fields that the industry of the cultivator is displayed. The general course of agricultural operations is the same as in Gujar Khan. The "dháya," time for sowing is not much observed. In the Kharor ait is hardly observed at all, and indeed the rainfall is not sufficient. In the rest of the tahsil it is observed only in the best villages, and by the best zamíndárs. The dháya is undoubtedly the best time for sowing wheat, but a good tilth and early winter rains are essential. In the best lipára lands in this tahsil, rabi sowings are made broadcast, and not by drill. Less seed is needed and the plants grow up thicker. There seems to be always moisture enough for rabi sowings in fallow lands. The crop in years when the summer rains stopped early, is often reduced to dire straits before the winter rains begin, but if the expected rain falls the crop is all right. There is an exception to this in rabi sowings in lipára lands. After the kharif crop is off the land, the land usually lies waiting for rain, and as soon as the first shower falls, the ploughs are out and the crop is sown. To the late sowings on lipára land is due the great proportion of barley as compared with wheat on such lands. Weeding is done with the plough in the kharif, the plough being driven up and down among the sprouting plants, tearing up grass and weeds and loosening the soil around the roots. Maize or cotton often gets the plough in this way three times, bájra seldom gets it more than once, but good zamíndárs plough twice. Weeds are more common than further south but except on chahi and abi land, the rabi crops are never weeded. Bhagát and pápra are the rankest weeds, the

CHAP. II.A. Agriculture General characteristics of cultivation.

former infesting sandy soils; but it is generally considered too much trouble to pull them up. Indeed the labour of weeding by hand would often be very severe. There is probably less combination among the zamíndárs of Ráwalpindi than in Gujar Khan, as family disputes are much more common. Men work more alone and employ more hired labour for the work which cannot be done without help. At harvest time in particular, the importation of labour is necessary to all zamíndárs whose holdings are of any size.

In the hilly portions of the district a lighter soil and a heavier rainfall induce other methods.

Ploughing is not so necessary as in the plains, but the land is ploughed often enough. Levelling and embanking are certainly not done with the laborious care of the zamíndár of the Pothwár. Manured lands must be levelled or the manure will be washed out of the soil, but when the manure lands have been levelled, the other lands do not receive much attention. The zamíndár does not toil early and late always levelling and embanking as does his neighbour further south, but between sowing and harvest has a good deal of leisure on his hands. Ploughing in the hills is always done under difficulties and sometimes under great difficulties. It is not easy to plough on a hill-side, when both man and cattle are in danger of falling out of the field. On the pebble ridges of the Kahru Circle the labour of ploughing is excessive. The cattle stumble over the boulders with sore and often bleeding feet, the ploughman with two blistered hands forcing down the ploughtail, and one foot on the plough-share, staggers behind trying to drive the coulter down into the rocky grounds. Neither men nor cattle can endure such toil long, and the expense of keeping the plough in order is much greater than in level villages. All the work is not like this, but cultivation in the hills is, no doubt, while it lasts, harder work than in the plains. Nearly all the sowing is done by scattering the seed and ploughing it in. All the kharif crops are sown in this way, and some of the rabi crops, nearly always on lipára land, and sometimes also on unmanured land. Generally less seed is used than in the plains, but the difference is not considerable. Weeding is little done. Potatoes are most carefully weeded by hand. Maize and other kharif crops are weeded by driving the plough up and down among the shoots. This should be done twice, but is sometimes done only once. In the hills, where it is not easy to have out the plough, and where the fields are small, the same effect is produced by loosening the clods around the growing plants with the hoe. Weeding the rabi crops finds favour with none, save a few hard working Malliars. This is not because the crops do not need it, for often the weeds and the wheat contend for the mastery of the sandy fields, but it is not the custom to weed, and it may be that the weeding would not be worth the trouble it would give.

CHAP. II, A.
Agriculture

It will be convenient to describe here the system of cultivation on canal, well and spring irrigated lands, and to reserve for a later section a description of the systems of irrigation.

"Nahri."

The "nahri" or canal irrigation cultivation of the whole district is confined to four villages in the extreme north of the Ráwalpindi Tahsil. Their names are Khattar, Bhallar Top, Garhi Sikandar and Salargah, and their water-supply is drawn from the Haro River which runs through the middle of them. The abundance of the water-supply has determined the character of the nahri cultivation. The industry and care which distinguish the cultivation of irrigated lands everywhere are entirely absent here. It is difficult to deduce any system from the multitude of different systems of rotation of crops found existing side by side. The rule seems to be to take a kharif crop whenever it can be taken and a rabi crop when it must be taken. The manured or lipára nahri lands are always double-cropped. The first crop is nearly always maize and the second crop usually barley. The land is given no rest. Abundant flooding with rich silt and abundant manure enable the same crop to be taken year after year. Excessive flooding has hardened and soured the canal lands to such an extent, that without canal water they will grow nothing, and it would take years of fallow to restore the lands to such a state that barani crops could be grown upon them. Maize is the distinctive crop of the nahri cultivation and is grown wherever possible. It is grown even without manure on maira lands. On maira lands, the usual two-year two-harvest rule is followed, that is, first a rabi crop, always wheat, then a kharif crop, generally maize, afterwards one year's fallow. Maize after wheat seldom does well, so the maize often precedes the wheat. Maize is reckoned the most valuable crop, and all other crops are only subsidiary to maize. Whenever opportunity offers, an extra maize crop is grown, and the two-year course is modified accordingly. A good deal of cotton is grown and gives good results on this land. Weeds and grass spring up in the canal lands with a rankness unknown elsewhere in the tahsil. No hand-weeding is ever done and the grasses choke the thinner crops. Weeding with the plough is done to all the important kharif crops. In the wheat fields the plants are seen struggling among thriving weeds. Everywhere the appearance of the fields is most slovenly. Little real ploughing is done; it is thought enough to merely break up the land for the seed. No irrigation beds are made, but the water is turned into the fields to run all over them with the result that some parts of the fields get too much water and some parts too little, while manure is not seldom washed right out of the soil. Probably with half the water supply and a system of organised management, the yields on the canal lands would be better than they are at present, but the people are satisfied with their present system and defend it, and the point is one only of theoretical interest. All the land which can be commanded

from the Haro has long been brought under the plough, and there is no possibility of any further extension of cultivation.

The well irrigated area is *nil* in Murree and a negligible quantity in Kahuta. The system of cultivation in Ráwalpindi and Gujar Khan Tahsils alone need be considered. Everywhere cultivation of chahi lands is in the hands of Malliars, often as owners or occupancy tenants, always as cultivators. The cultivation is of a market garden type and crops are grown for sale. In Gujar Khan the Malliars or their women hawk the vegetable crops about the surrounding villages and barter their produce for grain or clothes or anything else which the zamíndárs have to offer. Only in large villages are sales made for cash. In Ráwalpindi where most of the wells are within reach of the cantonment the produce is carried in there for sale to regular dealers. Everywhere in the kharif maize is the principal crop. The maize of the Soan wells is famous. The Malliars and other zamíndárs of the Soan are supposed to have special knowledge of maize cultivation. It is certain that they select their seed with great care, use great quantities of manure and expend great labour on the preparation of the soil and on weeding. Maize is indeed a very valuable crop, as the yield of grain is very large as compared with that of any other crop, and the stalks are easily saleable. It is a common saying that a bad maize and a good bájra crop are of the same value. Wheat and barley are grown in Gujar Khan mostly by non-Malliar cultivators, who do not understand vegetable growing. Sowings generally are early, and the plants have to be cut back at least once. It is often possible to cut the plants for fodder twice before the crop is finally allowed to ripen into grain. In Ráwalpindi Tahsil wheat and barley are grown only partly for grain, and almost invariably are cut back at least once before being allowed to ripen.

But the great profit in well lands is made from the miscellaneous crops. Sugarcane, unknown in Gujar Khan, is but seldom grown in Ráwalpindi, but in Ráwalpindi itself and in Kuri a good deal of cane is grown for eating. No cane at all is grown for sugar, but all is cut and sold retail. Cotton is grown only for the needs of the cultivator's family, but vegetables of all kinds are cultivated. Pepper is everywhere a favourite kharif crop, and is profitable. In the rabi carrots, turnips and other English garden crops are grown as much as possible.

The demand for carrots in Ráwalpindi Cantonment is very large, and some zamíndárs take contracts for the supply to the mounted troops. Around Ráwalpindi itself and to a less extent in the Soan valley, English vegetables are grown. Potatoes, peas, beans, cabbages, cauliflowers, &c., are all grown and the prices realised are very high. High class cropping of this kind, and the double cropping which is universal, demand large quan-

CHAP. II. A. Agriculture Chabi.

tities of manure, and on the best wells the zamíndár's cattle alone are not sufficient to supply manure for his fields. Manure is bought freely and can be obtained in all large villages where there are non-zamíndárs, who own more cattle than their land, if any, needs. The Municipal sweepings of the city and cantonment are in great demand as well manure. Without this supply, the wells around the city could not give the valuable crops which they now yield, and the manure from the city is carried away in sacks even to the Soan wells, 10 miles away.

Tobacco is also a favourite crop. Everywhere the growing of vegetables, and indeed well cultivation generally is considered the proper occupation of a Malliar and derogatory to the dignity of a man of family.

Abi.

There is no true abi land in Gujar Khan. Elsewhere it varies greatly in character. In Murree and the Pahar Circle of Kahuta it is locally known as *Botarh* and is irrigated by springs.

The fields generally lie low on the hill side and the water is brought down to them in water channels from the springs above. Nearly all the hills have an ample water supply, more than can be utilised for the small fields which are commanded. Sometimes the water fails in years of scanty rainfall, but this is not often the case. Rice demands a good deal of cultivation and a good deal of manual labour. No manure is used, but leaves are ploughed in and the soil stirred up into a leafy mould. The rice is grown in separate beds and the plants are transplanted, when ready, to the fields which have been made ready for them. The plants are always in water. It is not the custom to grow any crop in rotation with rice. When any other crop is grown it is only because the water has failed and a rice crop could not be taken. The true *hotar* field with good cultivation grows rice every year and nothing but rice. Elsewhere in the Kahuta Tahsil, the *abi* lands are irrigated by little cuts from the various streams, chiefly the Kanshi. The water-supply is always ample. Lands lying low on the border of the stream are not seldom water-logged and grow rice every year and rice only. At a little higher level the cultivation is superior and closely resembles the cultivation of *chahi* land. The cultivation is in the hands of Malliars and is as close and good as they can make it. The value of these *abi* lands varies through very wide limits. The best lands grow maize in the kharif, followed by tobacco, vegetables and wheat in the rabi. Sometimes three crops are taken off such land in the year. There is another class of land where water is less abundant and the owners less careful. Here wheat is the principal crop, followed occasionally by maize and kharif vegetables.

Rice is followed in rotation by no other crop owing to the excessive amount of water which rice demands.

The Ráwalpindi *abi* is of two kinds, montane and submontane.

The montane cultivation is in several scattered and difficult villages lying in gorges of the Margalla Range, and even beyond the range on the north. Here the *abi* lands are of no great value. Sometimes rice only is grown year after year. More commonly wheat and maize, or wheat and mash form the principal rotation. Such lands as these are little better than the *abi* lands lying in the hills above them. Far different are the submontane *abi* lands. Here garden cultivation is the rule, wherever the supply of water is sufficient and manure abundant. The richest of all the abi lands are in the village of Saidpur, 7 miles north of Káwalpindi. Bananas and loquats are the best garden crops, but many English vegetables are also grown. Ráwalpindi is close by and the road is passable to carts. Small patches of bananas are common on the banks of all irrigated springs, but in Saidpur bananas are an important crop. Water is plentiful, the town is large and manure abundant, the soil is a rich limestone loam and lastly the village is shut in with hills which shelter the gardens from cold winds. The banana trees are sown from cuttings and give fruit in the third year. Afterwards, pruning, watering and manuring only are necessary and the trees go on yielding fruit. The value of the annual yield of an acre of bananas is from Rs. 500 to Rs. 800. Recently the trees have been visited by disease and have all been cut down. The loquat gardens are also very valuable, but are not so profitable as the banana gardens. All the abi lands are not fruit gardens, nor are all manured. The lands watered by petty springs are always manured; but on the large springs, and the Saidpur spring is much the largest, the water is led on to ordinary maira lands, which are cropped like other maira fields, but benefit by an occasional water flushing. In area, maize and wheat are the principal crops. When the land is manured two crops a year are always got off it, but without manure two crops, and occasionally three crops, in two years, is all that can be taken. Abi lands are greatly valued, and no man's holding is so large as to induce careless cultivation. On the best lands the cultivation is by hand, but on all lands no pains are spared to plough the soil and to weed the crop.

Agricultural implements.

There is nothing very specially worthy of note about the agricultural implements in use in this district, which are of the usual type. The ploughs are light and similar to those used in other parts of the Punjab, and there is no tendency apparent to replace them with any other. The woodwork of the plough is usually of olive (*kao, olea Europea*), *phulaa* (*Acacia modesta*), *khair* (*Acacia catechu*), or *shísham* (*Dalbergia sissoo*). The village carpenter makes these implements, receiving the wood and iron from the zamíndárs. The component parts of a country plough have been so often described that it would be useless to recount them here.

Ploughing is generally done with bullocks, but occasionally in Gujar Khan a donkey may be seen holding up one end of the

CHAP. II, A. Agriculture. Agricultural implements.

yoke while a bullock at the other does the work, and sometimes when bullocks are scarce cows are employed. The total number of ploughs in the district is shown as 61,697, with 95,098 plough cattle. The area per plough cultivated on the average is 10 acres, but it varies much in different circles.

Other implements used in agricultural pursuits in this district are:—

Panjáli or *jot* (yoke), made usually of light wood, Persian lilac or bamboo, for yoking oxen to the plough or harrow.

Nári (traces), of leather, for attaching the yoke to the plough, &c.

Trat (whip), a whip with wooden handle and leather lash for driving oxen. *Choka* (goad) of wood, with iron point. *Maira* or *maj* (harrow). This is a flat board, some ten inches broad and eight feet long. A pair of oxen is yoked to this, and the driver stands on the board and drives them over the field to level it before sowing after ploughing; usually made of *phulaa*, *tút* or pine wood.

Karrah (earth-board), a large flat board with teeth at the lower end. Drawn by bullocks, and used for levelling fields by dragging earth from higher portions on to the lower; made of various woods, *khair*, *phulaa* or *tút*; much used in this district.

Jandra or *jandri* (earth-board), similar to the *karrah*, but smaller and drawn by hand instead of bullocks. Requires two men to work it, one to hold it down, the other to drag it.

Khopa (blinkers), coverings placed over the eyes of bullocks or buffaloes when working Persian-wheels.

Chhikka or *topa* (muzzle), made of string, placed over the noses of cattle to prevent their eating the crops; also used to prevent calves from sucking.

Nali (seed pipe), a pipe, headed by a cup, attached to the back of the plough, through which the seed is allowed to fall.

Trangar, open net for carrying straw or grass.

Ghománi or *Ghomat* (sling), used for frightening birds, &c., off the crops.

Manna (platform), a high platform, with bed of string, placed in the fields when the crops are ripening for the watchers to sit upon.

Phála, a bundle of thorny branches pressed together and loaded with stones, dragged by bullocks over the crops to break the husks and chop up the straw.

Tringli (pitch-fork), used for throwing up the mixed grain and chaff into the air to separate them.

CHAP. II, A.
Agriculture
Agricultural implements.

Phio, a flat spade, used for throwing the grain into the air after it has been already sifted by the *tringli*, to further divide off the actual grain from chaff and dust. The blade is usually made of *shisham* carefully planed, the handle of bamboo or light wood.

Chhaj (winnowing basket), shovel-shaped basket; the smaller kind is used for winnowing grain, the larger for sifting refuse.

Salanga or *satanga* (pitch-fork with two prongs), a rough wooden pitch-fork, chiefly used for lifting bundles of thorns in making thorn hedges.

Kandáli or *kundala* (for digging holes), shaped like a straight narrow spade, made of wood with iron blade.

Kahi (spade), a spade with blade at right angles to the handle.

Kohári, *kulhári* (axe).

Dántri or *daráti* (sickle), sickle for cutting crops, &c.

Ramba or *khurpa* (trowel). This is a small trowel or hoe, with a short handle.

Tokra (basket), a large basket for carrying manure.

Bora, open sack of rough rope for carrying manure, earth, &c., on beasts of burden.

Oil-mills, known as *ghání*, are used to express oil from *sarson*, *tárámíra* and other oil-seeds. These are constructed of wood, usually of *shisham*, *tút* or *phulaa* and consist of a circular receptacle of wood, made strong and bound at the top with iron, in which the grain to be crushed is placed. At the bottom of this is a small outlet for the oil to escape.

In the centre of the receptacle a heavy wooden crusher revolves, being yoked by a beam at right angles to itself to an ox or buffalo. The horizontal beam is weighted with stones, and as the animal paces slowly round, grain is pressed between the vertical crusher and the sides of the circular receptacle. The oil is squeezed out and escapes below. This is the usual form found throughout the Province, and it is to be met with in nearly every village in the district. It costs about Rs. 35 to make on the average. As no sugarcane is pressed in the district the sugar mill is unknown.

Agricultural operations.

Waste lands are usually ploughed up when first brought under cultivation in January, after a portion of the winter rains have fallen, or in July and August after the summer rains have commenced. Unless the lands are particularly suitable for cultivation, those broken up by the plough in January will be sown in autumn with a spring crop, and those broken up for the first time in July and August will be sown for the next autumn crop. Land thus broken up will be ploughed up as frequently as its cultivators can arrange to do it, before being sown with a crop.

CHAP. II, A.
Agriculture
Ploughing.

Land already under cultivation will get from ten to twenty ploughings before a wheat or spring crop, and, when lying fallow, five or six before an autumn crop, if possible; but when an autumn crop immediately follows a spring crop, only two or three ploughings can be accomplished; and similarly, when a spring crop is taken on manured lands immediately after an autumn harvest, only two or three ploughings can take place. The value of fallow ploughings is very fully understood in the district, and, speaking generally, fallow land is turned over with the plough as often as the cultivators can manage it. Large clods are broken up with spades and similar implements, and after the last few ploughings the harrow is also run over the fields. In the western tracts where the lands are much in the hands of tenants, the same amount of labour and care is rarely shown.

Seed.

Considerable care is now exercised in the selection of seed for wheat growing in Gujar Khan, Ráwalpindi and Kahuta. The strong, red bearded wheat, locally known as *lohi*, is the variety preferred to any other. Maize seed is also chosen with care, but there is room for improvement in this respect in regard to all crops.

Sowing.

Sowing for the wheat crops is usually done by means of a seedpipe at the back of the plough, but when the rains have been abundant, it is sometimes done broadcast by hand. Autumn crops are usually sown by hand.

The harrow is not much used after sowing, but is some times passed over fields to reduce the furrows to the same level when the rain has been scanty.

Weeding is only done frequently on irrigated lands by hand and occasionally on rain lands.

The plough is run through rain-watered lands bearing maize or *bájra* crops, when the crops are still young, at intervals of about a foot. This forms drains to let the moisture down to the roots, throws fresh soil on to them, and also turns up the weeds. This is done two or three times, and is an important operation in husbandry, known in this district as *síl*.

Reaping of grain crops is done with the sickle (*dántri*). Ratooning cotton is also cut with the sickle, but when it is desired to rotate the crop, the cotton roots are dug out with the spade.

Threshing and winnowing.

The grain, in the case of spring crops, such as wheat and barley, is threshed out by means of large bundles of thorns, which are weighted with stones (*phála*) and dragged over the grain by cattle driven round and round as it lies on the threshing-floor (*khalára*). The threshing-floor is a small space in one part of the field carefully levelled and then moistened and pressed down by the feet of flocks of sheep driven over it, after which some crop of little value is first threshed on it, and after it has been thus cleansed, it is ready for more valuable crops.

CHAP. II.A.
Agriculture
Threshing and winnowing.

The autumn crops are trodden out by the feet of cattle driven round and round on the threshing-floor, which is smaller than that used for spring crops. The grain which has been threshed out is next winnowed, as soon as a day occurs with sufficient wind to carry out the operation.

The winnowing is done first with the *tringáli* or pitchfork, and then with the *phio*, a flat spade-shaped instrument, and consists simply in throwing the grain and chaff straight into the air; the wind blows away the light chaff, the grain falling back on to the heap. The *chhaj* or winnowing basket, is not used much for sifting grain. *Bájra* is the crop in connexion with which it is most commonly employed

After the winnowing is complete, if the crop has been grown by a tenant, the owner's and tenant's shares are separated off at the threshing-floor, and the dues of the village artizans are paid at the same time. The owners of the crop are usually at this time also much pestered by beggars, to whom it is the practice to give small portions of the grain and straw.

Manure.

The manure used by the zamíndárs of the district consists of house-refuse, cattle-dung, droppings of sheep, goats, &c., old straw which has mildewed or rotted from keeping, ashes and earth-salts. Leaves are also employed in the hills.

The fields lying near the homestead, which is usually raised above the surrounding soil, get manured by natural drainage, and as a result of the habits of the people. Fields at a distance from the homestead are artificially manured, the manure being carried to the fields, distributed over them, and then ploughed in.

In the hill tracts it used to be a common custom for the villagers to get the Gujar herdsmen to collect their flocks on to the unsown fields at night, in return for which the owners of the fields supplied the herdsmen with food. The droppings of sheep and goats are esteemed the most fertilizing form of manure in this district. Wherever there are irrigated lands, these get the bulk of the available manure. The manure is thrown out on the ground first out of sacks, and then spread over it with the *phio* or flat wooden spade, and is then ploughed in before the crop is sown. Manure is also put into fields when the crop has come up. In the case of sugarcane and melons, ashes and *kallar* or earthy-salt are used in this way.

Much manure is used in the hill tracts of Murree and Kahuta.

Unirrigated *lipára* lands get from 80 to 160 maunds per acre in the year in which they are manured, but no very accurate average can be struck as the amount of manure available for any particular field varies very much according to circumstances, the number of cattle possessed by the owner, the distance of the fields from the homestead, and the nature of the crop intended to be

CHAP. II. A.

Agriculture

Manure.

sown all affecting the question. Manure is much valued in the eastern portions of the district.

The lands in the Murree and Kahuta hills, which are not manured, are of comparatively little value; those that are manured bear excellent maize crops, and some wheat. The irrigated lands may all be classed as manured, and amount to one per cent. of the total area; seven per cent. of the total cultivated area of the district has been classed as *lipára* or manured; of this it may be said that one-half, favorably situated, is constantly manured, and that the remaining half is a fluctuating area, constant in quantity with varying units; that is to say, the same area is manured year by year, but the fields chosen to receive the manure vary from time to time.

The following table shows the times of sowing and reaping of the principal crops of the district:—

Statement showing the dates of sowing, harvesting, and storing of crops in the Ráwalpindi District.

Harvest.	Crops.	Sowing.		Harvesting.		Storing.	
		From	To	From	To	From	To
KHARIF.	Maize	15th May	12th June and July.	29th Sept.	8th Novr.	1st July	23rd Decr.
	Bájra	June ...	July ...	3rd "	19th Octr.	8th Novr.	28th "
	Moth, mung and másh.	13th June	14th Aug.	19th Octr.	3rd Novr.	23rd "	8th "
	Til	28th "	Do. ...	Do. ...	Do. ...	Do. ...	Do.
	Jowár	13th "	Do. ...	Do. ...	Do. ...	Do. ...	Do.
RABI.	Wheat	4th Octr.	14th Novr.	15th April	2nd July	22nd June	7th July.
	Barley	29th Sept.	Do.	5th "	16th May	17th "	18th "
	Gram	Do. ...	15th Octr.	15th "	20th April	13th "	27th "
	Sarson	15th Sept.	Do. ...	11th "	Do. ...	17th "	18th "
	Táramíra ...	Do. ...	Do. ...	Do. ...	Do. ...	Do. ...	Do.

Population engaged in agriculture.

The population has been fully dealt with in Chapter I. It is sufficient here to say that with the exception of an infinitesimally small number of artisans, &c., the whole rural population is engaged in and dependent on agriculture and to note that the urban population, which is confined to Ráwalpindi and Murree, amounts to only 6 per cent. of the population. The exception among the rural population includes inhabitants of villages surrounding Ráwalpindi who find work in the various workshops of the city and cantonment.

CHAP. II, A.

Agriculture

Agricultural labourers.

Daily labour is little required except at harvest time, and then it is supplied by men of the agricultural tribes. Kashmíri and Pathán immigrants also give a little assistance, and at harvest time especially the menial classes supply much of the labour required. Occasionally labourers, known as "káma" or "tahlia" are employed from harvest to harvest or are even entertained continuously, but holdings in general are not large enough to necessitate this. These men, who are drawn from the poorer class of landowners and are sometimes the younger members of large families, receive wages from Rs. 2 to Rs. 12 for the half year, and also food, clothes, and shoes from the owner.

Village menials assisting at harvest usually receive a kind payment of one load to every twenty loads gathered.

Principal crops.

The following table gives the percentage of the area harvested of each of the principal crops on the total crops harvested :—

Harvest.	Crops.	Gujar Khan.	Ráwalpindi.	Kahuta.	Murree.	District.
Kharif.	Maize	1	4	10	55	5
	Jowár	8	7	3	1	4
	Bájra	23	25	28	5	18
	Moth	5	5	6	...	4
	Múng	8	3	4	...	6
	Mash	...	...	2	5	1
	Rice	...	...	...	3	...
	Potatoes	...	...	...	3	...
	Cotton	2	1	2	1	1
	Fodder	2	3	...	1	3
	Others	1	1	3	8	1
	Total Kharif ...	50	49	58	82	43
Rabi.	Wheat	39	39	36	16	43
	Barley	2	2	1	2	3
	Gram	1	...	1	...	1
	Sarshaf	1	1	1	...	1
	Táráméra	5	7	2	...	7
	Tobacco	...	...	...	...	...
	Fodder	...	...	...	...	...
	Others	2	2	1	...	2
	Total Rabi ...	50	51	42	18	57

Bájra.

Bájra (*Penicellaria spicata*) is the chief food staple and bájra stalks are the principal support of the cattle. As a food grain it is esteemed second to wheat alone, and in sustaining power it is superior even to wheat. It is the most common kharif crop throughout the plains. In the hills maize takes the first place.

In Murree and the hill circle of Kahuta bájra is always an inferior kharif crop, grown only in outlying lands and low down near the plains. The best land and the most abundant manure are

CHAP. II.A.
Agriculture
Bájra.

kept for maize. In the Kahru Circle of Kahuta bájra is the principal kharif crop only where the maira lands are fallowed every other year. On lipára maize is the chief crop, but on maira lands where a rabi is taken followed by a kharif crop, the kharif crop is usually bájra. The year's fallow is known locally as "wisáh," and this system of cultivating maira lands with two crops and then one year fallow is known as the wisáh system. It may be said that bájra as an important staple is co-extensive with the wisáh system on maira land.

Everywhere else it is grown on every class of land, but is at its best as a fallow crop on manured land. The bájra grown on maira land is little accounted, but that grown on lipára sometimes gives a yield little less than that of maize. There is a very great difference between the outturn on manured lands where bájra is grown after fallow and on other barani soils where bájra is grown only after a rabi crop, generally wheat, has been taken off the land. Bájra is sown usually in the latter half of May and June, and is cut in September and the first half of October. The best *bájra* is grown with the stalks well apart from each other, so that the plough can be run between them.

A common agricultural proverb on the proper method of growing various crops runs as follows :—

Moth supattal,
Til ghane,
Dad trap jowár ; Githon utte bájra,
Dalanga utte bár

which signifies that *moth* should be grown with the plants, at a distance from each other; *til* with them close together; *jowár* stalks at a frog's leap distance from each other; *bájra* stalks a span apart, and cotton stalks separate one pace from each other.

The bájra of the district is of excellent quality. About two seers per acre seed grain are sown broadcast. Great care is taken at harvest time to protect this and other kharíf crops from birds. The yield per acre in the plains is about 320 seers on lipára, 160 seers on maira and 120 seers on rakar lands. In the hills the yields are less. Lipára gives about 240, maira 120, and rakar about 100 seers per acre.

Jowar and kharif fodder crops.

Jowár, or the great millet, is never in the hills and very seldom in the plains grown as a grain crop. It is almost entirely grown thick-sown for fodder, and is then known as charri. It is not accounted so useful as bájra. The stalks of jowár are better fodder than anything bájra can yield, but the grain is eaten only by the poorest, while the cattle have grown to like bájra. It is, however, the most valuable and useful of all fodder crops. The kharíf fodder crops are entirely charri. Jowár sown thickly is an exhausting crop, and where, as near Ráwalpindi, jowár is taken off

the same land year after year, it is necessary sometimes to sow thinly. It is grown on all classes of soil. The owner always takes a share of jowár, even though he may take no share of any other fodder. The yields are much the same as for bájra. The cash value of charri is about Rs. 20 on lipára, Rs. 15 on maira and Rs. 10 on rakar lands.

CHAP. II, A. Agriculture

Pulses.

The pulses are múng, moth and mash (phaseollus mungo, aconitifolius and radiatus). They are an important crop in Gujar Khan and the Kahru and Kallar Kahuta Ilaqas of Kahuta Tahsíl. In Gujar Khan pulses are next to bájra, the principal kharíf crop. Múng is the characteristic pulse of the Pothwar plain. In many villages it is accounted little less valuable than bájra. The best land for múng is the site of old village ábádís, where the kallar in the soil is particularly favourable to its growth. These lands are known locally as "pind," and in the kharíf múng is the only crop grown and is looked on as one of the best revenue paying crops. The grain of múng grown on "pind" lands can be distinguished by the eye from other múng, being larger and brighter in colour. The múng in Bijnial in Gujar Khan is locally famous. Except on these favoured patches múng is not a valuable crop, and is grown only with bájra or where bájra will not grow. In Ráwalpindi Tahsíl múng is almost confined to the villages south of the Soan. In Kahuta and Murree it is of importance in the Kallar Kahuta Circle alone.

Moth is a hardy crop grown on inferior lands. It is more valuable for the fodder than the grain. It is largely grown near Ráwalpindi Cantonment and the large camping grounds, and in the Kahru Circle of Kahuta Tahsíl, where the large areas of stony, sloping rakar land will grow nothing except occasional crops of inferior pulses. In the latter tract it takes the place on rakar land of the táramíra of less rainy tracts. Másh is the hill pulse.

Pulses are growing only on unirrigated báráni soils, múng getting the best land, and moth only poor land. The value of the pulses as resting and refreshing soil which has been exhausted by excessive cropping is well recognized, and the strong position which pulses hold even on the best land is due to this recognition. Moth is generally grown alone, but múng and másh may be grown with maize or bájra, or they may be grown alone. These pulses are sown immediately after rain in April, and are easily grown requiring little labour. Moth and múng yield about 120 seers on an acre of lipára, 100 seers on maira and 80 seers on rakar. Másh yields are 160 seers on lipára, 120 seers on maira and 80 seers on rakar.

Maize.

Of no importance in Gujar Khan, maize in Ráwalpindi Tahsíl, though only fourth in order of acreage among the kharíf crops, in point of importance is second to bájra alone. In the hills it is by far the principal crop of the year. In Ráwalpindi Tahsíl it is the principal, sometimes almost the only kharíf crop, on irrigated soils;

CHAP. II, A. Agriculture Maize.

on báráni soils it is grown seriously only on lipára; on unmanured soils it is of no importance. Maize is the principal support of the people and of the cattle in the hills. All classes of land in Murree are put under this crop. In the Kahru Circle of Kahuta it is the principal crop on manured land. In the Kallar Kahuta Circle it is the most valued kharíf crop on lipára lands, and the best lands are put under maize.

As a food maize is not so palatable, nor so sustaining as bájra, but throughout all the hill tracts it is the staple food of the people. Milk is considered necessary to make maize digestible, and large quantities of milk are consumed in the maize eating tracts. Another difficulty with maize is the difficulty of grinding it into flour. It cannot be ground in the ordinary hand mills, unless it has first been slightly roasted. In the hills most of the villages have water-mills, generally worked by non-owners, and there the maize goes to be converted into flour, the mill owner usually charging his fee of one seer in twenty.

There are many varieties of maize. The commonest are the white and the yellow called respectively *sufed* or *chitti* and *píli.* Besides these, varieties called sattri, saithi and kári are sown in Murree Tahsíl. The last is also grown in Ráwalpindi. The white and the yellow varieties are used for all purposes without much distinction. The only variety which appears to be grown almost entirely for fodder is that called kári. It is not very good to eat, and thrives best in a cold climate. In the Murree Tahsíl preference is given to one or other of the five varieties there grown according to the more or less elevated position of the fields and consequent alternations of climate. That called "saithi" only thrives in a cold climate and has this advantage that it can be cultivated in inferior lands.

In the Ráwalpindi Tahsíl, the variety called *kari*, owing to the superior nature of the soil, can be brought to greater perfection than in Murree, and is in that tahsíl preferred to *píli.* As a matter of fact, all the varieties grown are used for all purposes, and it is not customary to set apart any particular variety for making flour, for roasting, or for use as a vegetable.

Maize (*makki*) is, in most parts of the district, preceded and succeeded by barley, and except in *cháhi*, or well-watered lands, it is usual only to take one crop off the land in the year.

It is generally admitted that wheat does not do well alternated with Indian corn; and especially in the Murree Tahsíl, where the soil is poor, if sown after wheat, the maize crop is a failure. Similarly wheat cannot succeed maize, though only one crop be taken in the year.

The system of husbandry differs much in different tahsíls. In the Ráwalpindi Tahsíl maize is sown on the 1st July in manured

land and about the 15th July in *cháhi* or well-watered lands, and *nahri* or canal-watered lands. The seed germinates in three or four days, and the first *godi* (hoeing) is effected in about ten days from sowing. At this time water is also turned on in irrigated lands. When the land surface has caked after watering, a second *godi* or loosening of the surface soil is effected. Before the crop reaches maturity, the land is also furrowed (*sil*) three times.

Irrigated lands are ploughed three or four times, and *báráni* lands eight times before sowing. This differs directly from the system persued in the Murree hills, where only two ploughings are effected. Manure is applied before sowing in all lands in this tahsíl (Ráwalpindi), and, indeed with very few exceptions, this is the general custom in the district, the outturn depending to a great extent on the richness of the soil.

The cob or *bhutta* (*chhalli*) is fairly matured in sixty days, but is left for ten days more before the stalks are cut down. The cobs and stalks are then collected in heaps, called *phassa*, and exposed to the rays of the sun for fifteen days. The cobs are then separated from the stalks and placed in the threshing-floor, and the seed is either beaten from the core with clubs, or removed by the trampling of cattle.

In Murree Tahsíl the land has to be highly manured in the more elevated tracts. Sowing takes place in May and June. Except in the lower lands, where the climate is warm, the crop does not mature for four months. In these lands the variety called *sattri* is grown, which ripens in sixty days. There is no rotation of crops in this tahsíl as far as maize goes. It is generally sown once a year in all manured (*lipára*) lands. If the land becomes impoverished, it is allowed to lie fallow for a year, or potatoes are tried. Only two ploughings are effected before sowing. More than two ploughings are thought deleterious. Manure is put in in July, August and September. The snow then falls and causes the manure to percolate the surface soil. After the snow has disappeared, the land is furrowed for sowing, which is done broadcast, eight sérs sufficing for one kanál. *Godi* is effected soon after the appearance of the crop, and furrowing (*síl*) when the plants are a foot high. *Mothi* for cattle is sometimes sown along with the maize, and grows with it, the proportion being $\frac{1}{4}$ *mothi*, $\frac{3}{4}$ maize. After exposure in the *phassa* for 15 days after reaping, the seed is beaten off the core with sticks. Sowing is always effected after a seasonable rain.

The most successful cultivators of maize are the Malliárs or Aráíns, a most industrious class, and the best cultivators in the district. Their success is obtained by constant ploughing before sowing; assiduous attention to the crop by weeding, *godi*; and *síl*; and care in the selection of seed. The finest seeds of the finest cobs are most carefully preserved for next year's sowing.

CHAP. II.A. Agriculture Maize.

The Awans are also successful cultivators of maize, and very nearly rival the Malliárs. Of course in maize cultivation, the amount of manure available, timely rainfall, and a judicious rotation of crops, are all most important factors; but what is required to improve the quality of the maize grown is a careful selection of seed by the cultivators, and the fostering care displayed by the Malliárs in bringing their crop to maturity.

In yield no crop, except rice, can compare with maize. It is a common place that good bájra and poor maize give an equal yield. The yield of maize is commonly reckoned as little less than double that of bajra.

On chahi land the yield of maize is about 720 seers per acre, but on the Kharora well lands not much more than 500 seers is realised. Lipara everywhere gives about 600 seers, las and maira 400 seers, and rakar 200 seers. The yield on the abi of the Soan Ilaqa is about the same as on well lands. Elsewhere the yield on abi lands is the same as on lipara. The nahri lands of the Kandhi Soan tract give about 500 seers, less than the yield on lipara. The reason is that maize needs manure to do really well, and most of the nahri lands are unmanured. On the manured nahri land the yield is quite as good as on chahi land.

Rice.

Rice is grown only on abi lands in Murree and parts of Kahuta Tahsíl. On the Kallar Kahuta Circle rice lands lie low on the banks of the torrents, and being water-logged, will grow nothing but rice. In the other circles the rice fields are low down on the hill sides, and are flooded from streams. Many kinds of rice are grown, but none are superior and none are much sold.

The ground is first flooded in March, then ploughed up and levelled with the harrow (*maira*) and weeded; the seed is then soaked for a week, and when it commences to break it is taken and sown very thickly in a corner of the field which has been manured with *drek* or *bhaikar* leaves. It remains thus in the ground throughout Jeth (May, June), and is kept well flooded. The rice fields are kept flooded, and well ploughed up in Hár (June and July) three times, and the water well mixed into the ground, which is then levelled, and the rice plants are then taken out and planted over the field by hand at a distance of one foot from each other. This goes on until the end of July, the fields being kept continuously under water and carefully weeded. In October the rice ripens, the water is run off and the crop is cut. The yield is about 450 seers per acre.

Potatoes.

Potatoes are grown only in the Murree Tahsíl, and only in the higher parts of that tahsíl. The villages growing potatoes are nearly all near Murree and belong to the Dewal and Charihan Ilaqas. A few villages in the Satti Ilaqa of Kotli grow potatoes, but the area is quite small. When the limited number of villages

CHAP. II. A.

Agriculture

Potatoes.

growing potatoes is considered, the importance of the crop to them is much greater than is represented by the fact that the average area under potatoes is only 3 per cent. of the average annual cropped area of the whole tahsíl. Potatoes are the most valuable crop grown in the hills. The cultivation of potatoes receives more attention than that of any other crop. The land always lies fallow for the previous harvest and is carefully scraped and levelled before the crop is sown. Manure is nearly always, but not invariably, used, whatever may be the recorded class of the soil. All the work is done by hand. The seed trenches are made and the ridges built up by hand and the plants are carefully weeded. Two kinds of potatoes are grown, known as the English and Kálsi or native varieties. The English variety needs more cultivation, but bulks larger and ripens earlier than the other. The price of potatoes changes with the season and great profit awaits the zamindar who can get his early potatoes to market before his neighbours. Potatoes are reckoned a most exhausting crop, the most exhausting save charri that the land can grow. It is but seldom that two successive crops can be taken off the same land. The yield varies within a very wide range and the crop is a delicate one. The yield may go up to 25 maunds per kanal, but this is considered remarkable, as indeed it is. It will be safe to take the average yield as 5 maunds per kanal for lipara land, 3 maunds per kanal for maira and 2 maunds for rakar. The ordinary price is from Rs. 2 to Rs. 2-8 per maund, but the price of early new potatoes rises to Rs. 5 and more per maund. The potatoes have always to be carried into Murree and often down to Ráwalpindi for sale. It will be safe to assume the village price at Re. 1-8 per maund. Following this calculation the gross value of the potato crop per acre matured is—

	Rs.
Abi, lipara	60
Maira	36
Rakar	24

Labour is generally employed to help with the sowing and the weeding, and this is paid for in cash. Except when the fields are close to the village site, they have to be watched night and day to keep out pigs. Potatoes are nearly always grown by owners or cash-paying tenants, and it is difficult to determine the exact custom as to the expenses of cultivation. However, it is clear that the owner has to help both with the seed and with the labour, which must be hired when potatoes are grown.

Cotton.

Cotton is of little importance anywhere and is grown only to meet the domestic needs of the cultivator. Nowhere are there large areas under cotton, and nowhere does its cultivation extend beyond occasional patches. Though grown on every class of soil it is not accounted a valuable crop. Being a hardy plant it is common on inferior maira and rakar soils, where the yield is very

CHAP. II, A. Agriculture

small indeed. It is sown in April broadcast, but scantily, so that the plants will not press on each other. Furrowing (*síl*) is done after it has begun to come up.

Rabi Crops. Wheat

Wheat is by far the most important crop of the year in all the plains portions of the district. Gujar Khan is pre-eminently a wheat-growing tahsil and Gujar Khan wheat is of more than local celebrity. Ráwalpindi grows the same proportion of wheat, grows the same wheat, and grows it in the same way though with perhaps less industry. In the hills wheat is of little importance and a heavy crop is unknown. North of Gora Galli it is not sown at all, the heavy snow so retarding its growth that it cannot be got off the ground before the maize sowing season has begun. The variety preferred is the strong bearded wheat known locally as "lohi," "rattar" or "ratti." A little soft white bearded wheat is grown, but it is used only for white flour and is not much favoured. Beardless wheat is little sown. Great care is taken in selecting the seed for sowing and the best land is always kept for wheat. All classes of soil are put under wheat. The yield on nahri is lower than on unirrigated lipára land. Wheat does not flourish on nahri land. It is sometimes grown after a kharif crop has been taken off the ground, and even if grown in fallow land the weeds of the nahri soil and not seldom the excessive water prevent any very luxuriant crop.

The best time for sowing is early in October, but if favourable rains do not fall about that time, it can be sown up to the end of December. When an autumn crop has already been taken off the land it is usually sown, if possible in November. In some parts of the district, when the autumn crop has not been favourable, and it has not been possible to sow it before, wheat has occasionally been sown as late as January, but this is done only under pressure of necessity.

The crop requires weeding occasionally about the end of December and beginning of January; the *piázi* or wild leek being the commonest weed. After this the fields then require little or no attention, until the time comes for cutting the crop.

Heavy rains are desirable in August and September before sowings, and, speaking generally, the zamíndárs think they cannot have too much rain while the crop is in the ground. Rains in Chet (March), however, are most prized, the people having a proverb to the effect—

Wasse Chetar,
Na ghar meve na khetar,
or
Wasse Chet,
Na khál mitte na khet.

the meaning being that, there is no room anywhere for the grain when rains fall in March.

CHAP. II,A.
Agriculture
Wheat.

Wheat ripens in different parts of the district at various periods. In the plains it is cut as early as the end of April; in the hills as late as July. Wheat is in this district very rarely sown in conjunction with any other cereal or pulse and different varieties of wheat are not sown in the same field.

Mustard (*sarson*) and *tárámíra* is often sown, especially in Gujar Khan, along with wheat. This is never, however, allowed to ripen, but is taken out early in the year for fodder and other purposes. It was at one time supposed that this practice rendered the wheat more liable to rust (*kummi*), but careful enquiries made on this point did not bear out the assumption.

Rust, known as *kummi* or *kungi*, is the result of damp cloudy weather. Rain alone does not appear to produce it unless accompanied and followed by heavy damp close weather. If the weather between the showers of rain is bright and wind springs up, the tendency to rust is dissipated, and it is wonderful to see how much good a few clear fresh days will do even to crops which have already begun to rust, provided the mischief has not gone too far. Rust and hailstones in spring are the greatest dangers to which the wheat crops of the district are exposed.

The yield on chahi lands is about 400 seers per acre, but the well lands of the Kharora yield not more than 320 seers.

Abi gives a yield little less than chahi land, except in the hills where the yield is only about 240 seers. About 280 seers is realised on the nahri lands of Ráwalpindi.

Lipára everywhere gives about 320 seers, except in the hills where 240 seers is the average yield, and in the Kharora where the outturn is not much more than 200 seers. Las yield about 300 seers, and maira 240, but in the hills and the Kharora the yield is not more than 180 seers. The Kahru maira gives an outturn of about 200 seers. Rakar lands vary between 100 and 140 seers.

Barley.

Barley is not anywhere an important crop. Nearly all the barley is grown on lipára land. It is never grown on inferior lands. It can be sown much later than wheat, ripens much earlier, and nearly always yields more. For these reasons it is favoured in the hills, and rabi sowings often do not take place until very late.

Oilseeds.

The oilseeds are *tárámíra* and *sarshaf* (Brassica campestris). They are grown only in Gujar Khan and Ráwalpindi Tahsils, and in the south of Kahuta Tahsil. Further north their place is taken by kharif pulses. *Tárámíra* is grown on bad rakar land and on the banks between fields or is sown in the bájra field. It is reckoned very exhausting to the soil, but it is very hardy and springs up everywhere. In rainy years it sows itself and grows as a weed. Sarshaf is sown mixed with wheat, and almost entirely on lipára land. It is of two kinds. White sarshaf, which is grown with wheat, is a good cattle fodder. Black sarshaf, which is much rarer, is grown as a separate crop, and is esteemed a good spinach vegetable.

CHAP. II, A.

Agriculture

Oilseeds.

Both sarshaf and tárámíra are sown in the end of September, and when allowed to ripen for oilseed are cut in the second half of April. Both are much cut for fodder, and are cooked as a pot herb for the people. Tárámíra is the favourite food of cattle.

The yield of both is about 140 seers on all lands except rakar where the outturn is from 80 to 100 seers.

Gram.

Gram is of little importance anywhere. Being a pulse it is a useful and refreshing crop, but cannot stand frost and cold. In a few villages only it is grown on fallow lands. Usually it follows bájra. The outturn under favourable conditions on fallow land is greater than that of wheat, but not when it is grown after a kharif crop. In yield it differs little from barley.

Other rabi crops.

Other rabi crops consist of a little *massar*, *alsi* and other small pulses and oilseeds. Safflower (*kasumba*) has disappeared owing to the use of aniline dyes.

Fruit trees.

The following account of the fruit trees of the Murree and Kahuta hills is taken from Mr. Kitchin's Assessment Report of these tahsils.

Throughout the high hills in the two tahsils, and especially in the Murree Tahsil, fruit trees grow in every village. The fruit is hawked about by the owners during the season. Large quantities come into Murree every day and are hawked about the bungalows or sold in the bazárs. At the end of the Murree season the zamíndárs load up their bullocks and donkeys and take the fruit down to Ráwalpindi for sale. From the Kahuta hills most of fruit goes down to the Kahuta plains and is sold there in towns and large villages. As a general rule the owners and occupancy tenants themselves look after the trees and take the fruit. A tenant-at-will may take the fruit, but in such cases he is generally a cash-paying tenant of old standing, and such tenants not seldom think themselves as good as the owners. Sometime the tenant takes the fruit and gives a share to the owner corresponding to the share or produce which he pays. The rule, however, is that the owner takes the fruit. At this settlement the fruit trees in the Murree Tahsil and in the Pahár Circle of Kahúta, where alone fruit trees are common, were enumerated in the course of the settlement. The number of different kinds of trees is very numerous, but in the table below they have been grouped together under their main sub-divisions and the English names given :—

Tahsil or Circle.	Walnut.	Pear.	Apple.	Apricot.	Peach.	Grape.	Loquat.	Ámlok (Lotus).	Plum.	Mango.
Murree	4,300	19,924	395	7,009	5,725	466	24	13,895	3,761	14
Pahár	381	2,489	231	867	331	38	...	120	...	202

Walnuts are the most valuable of all the fruit trees, and some individual trees, have a great reputation. Above 4,000 feet, every village has its trees and in the autumn Murree and Ráwalpindi are flooded with the produce. The trees are grown from seed and begin to give fruit when about 20 years old. There are two kinds, known as Chánja and Báta. The former has a thin skin and sells readily. The latter has a small fruit and thick skin, and is not much grown. An average tree yields about 2,500 walnuts per year. A good tree yields much more than this, but the crop is precarious and often fails. The price varies from 1,000 to 1,500 per rupee, according to the season and the quality of the fruit. Calculating that half the trees are bearing at a time the average produce per tree may be estimated at Re. 1. CHAP.II.A. Agriculture Walnuts.

Pears include several kinds of different trees, known as Batangi, Batang, Nákh and Náspati. Batangi is the wild pear which grows in the forests. The other trees are got by grafts on to the Batangi. Their value is in the order in which they are written above, Náspati being the most valuable. Even the last is not very palatable and there are only a few trees in the whole district which can be compared with the pear of Kashmír. Taking them all round, a value of 10 annas per tree per annum is as much as would be safe to assume. The Nákh is the most common of all the fruit trees, and the fruit is exported far south of Ráwalpindi. Pears.

The apples are various kinds of crab apples, and there are but few trees which give a sweet and delicate fruit. An average of four annas per tree is a sufficient estimate of the annual produce. Apples.

The apricots are of several kinds, but none are good. The trees are grown from seed and begin to give fruit in about the tenth year. The value of the produce may be estimated at 8 annas per annum. Apricots.

The peach generally grows wild, and though it receives some attention is not a valuable tree. There are a few good trees, but they are uncommon, four annas per tree per annum is a sufficient estimate. Peaches.

The grapes of the tahsil are small and sour and receive little attention. The fruit sells as low as Re. 1 per maund. An estimate of four annas per tree is sufficient. Grapes.

The loquat is a valuable tree and in the District Board garden at Chattar yields a large income. There are very few in the hills. I estimate Re. 1 per tree. Loquat.

The Amlok is a very common tree in the Murree hills and reaches a fine size. It is sometimes planted, but often grows alone. The fruit is poor stuff and sells at about six annas per maund. An estimate of eight annas per tree may be made. Amlok.

The plum is little better than the *ber* tree of the plains and one anna per tree is sufficient. Plum.

CHAP. II, A.
Agriculture
Mangos.

A great many mangos grow in the Kahúta plains, but these have not been enumerted. The tree does not grow high up in the hills and suffers heavily from frost. The produce is about Re. 1 per tree per annum. Following out these calculations it will be seen that the value of the trees in rupees is as follows:—

Tahsil or Circle.	Walnut.	Pear.	Apple.	Apricot.	Peach.	Grape.	Loquat.	Amlok.	Plum.	Mango.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Murree	4,300	12,452	99	3,504	1,431	117	24	6,947	235	14	29,123
Pahár	381	1,556	58	434	83	9	...	60	..	202	2,783

It will be noticed that according to this estimate the value of the fruit in the Murree Tahsíl is more than double the revenue. The estimate is perhaps liberal and the crop is undoubtedly very precarious, but it is certain that there are many villages in the Murree Tahsíl, especially in the western half of the tahsil, in which the value of the fruit greatly exceeds the revenue demand.

Extension of cultivation.

The present cultivated area is 6 per cent. more than that of last Settlement (1885), (about twenty years ago), which again was an increase of 46 per cent. on the area of the Regular Settlement. The rate of increase varies with the amount of culturable area still left to be brought under the plough. It is high in the hills and less marked in the plains. In Gujar Khan the increase since last Settlement is 2 per cent., and in Ráwalpindi and the Kallar Kahuta tract of Kahuta Tahsil 9 per cent. The increase in the percentage of cultivated area has been continuous, while the percentage of culturable area shows a continuous decrease. Especially in Gujar Khan the population is pressing hard on the soil, and all land which is really culturable has been or is being broken up. The unculturable land is mostly rock and ravine and is of little use even for grazing. In the plains generally there is a lack of grazing for horned cattle, and though sheep and goats can pick up a living on the banks of ravines and in the sides of the hills, horned cattle are necessarily almost entirely stallfed. In Ráwalpindi Tahsil, the chief increase is in the Kharora Circle, where the area shown as unculturable and owned by the people, though constantly diminishing, is still large. It would not be safe to say that further extension of cultivation is not to be looked for. Something will always be done to extend cultivation by banking up and levelling the countless little ravines, and by breaking up land which at present seems quite unfit for cultivation, but the nature of the uncultivated waste gives little reason to expect much extension of cultivation. The chief improvements to be looked for are in a change of class of soil. As the population

Extension of cultivation in the plains.

CHAP. II, A.

Agriculture

presses more hardly on the soil, rakar lands are continually being levelled up and improved, and in course of time are fit to rank as maira. Manure too is more economically used and more widely spread, while lipára tends to increase with increase in population and live-stock.

Extension of cultivation in the hills.

Increase in cultivation since last Settlement in the Kahru Ilaka is 15 per cent., while in Murree Tahsil and the Pahar Ilaka of Kahúta it reaches the high figure of 32 per cent. All classes of soils have increased, and there is room for further increase The extension of cultivation is going on fast. Common land may not be partitioned save with the leave of the Deputy Commissioner, and, each shareholder, however, small his holding, can break up as much land as he likes, secure from the chance of ejectment when the land is partitioned. Until recently the breaking up of common land was absolutely forbidden under heavy penalties, except with the leave of the Deputy Commissioner. Within the last three years the rules have been redrafted and the breaking up of land is forbidden when damage is done to trees and undergrowth. The people have not submitted to the rules, which, inspite of occasional prosecutions and fines, appear to be almost wholly inoperative. Indeed pressure on the soil is very great, and the breaking up of land goes on apace. Water too is abundant and the abi lands are steadily increasing.

Land transfers. Agricultura indebtedness.

The main facts connected with transfers of land are set forth in the following statement, which shews the average annual alienations by five-yearly periods :—

Years.	MORTGAGE WITH POSSESSION.		REDEMPTIONS.		SALES OR PERMANENT TRANSFERS FOR VALUE.	
	Number of transactions.	Cultivated area transferred.	Number of transactions.	Cultivated area transferred.	Number of transactions.	Cultivated area transferred.
1880-1885 ...	2,439	4,155	734	1,161	3,236	4,182
1885-86 to 1889-90 ...	2,790	4,218	1,369	2,320	4,213	4,796
1890-91 to 1894-95 ...	2,723	4,165	...	2,880	5,369	6,110
1895-96 to 1899-1900 ...	2,399	2,619	2,083	2,635	6,249	5,976
1900-01 to 1904-05 ...	2,238	2,400	2,341	3,122	5,928	6,036
1905-06	...	...	...	...	..	...

Conditions under which transfers are made vary very much. In Gujar Khan (and the conditions of the Kallar Kahuta Circle of Kahuta Tahsil are much the same) the population is entirely rural and notably industrious, and the money-lending class not very strong. Only about one-half the sales and about one-third of the mortgages have been made to money-lenders. Almost all the rest have gone to members of agricultural tribes.

The alienees are generally soldiers and men who have made money in contracts or even in day labour. It is the ambition of every soldier to buy a little land, and there is far more money

CHAP. II, A. Agriculture. Land transfers. Agricultural indebtedness.

seeking investment than land to be acquited. Among men of this class mortgages are not popular and indeed mortgages are not considered respectable by the best zamíndárs. A very large amount of the mortgage with possesion to zamíndárs is mortgage only in name. Either the mortgagee cultivates and pays the full kind rent to the proprietor, or he takes the produce in liquidation of the principal. Such mortgages are known as *halál* to distinguish them from *harám* mortgages, in which the mortgagee takes rent in lieu of interest. Of the actual proportion which *halál* mortgages bear to the total there are no figures to show, but the proportion is considerable. The Hindu transferees are nearly all money-lenders, and generally Khatris. Every zamíndár keeps a running account with the money-lender and almost all money-lenders have acquired land usually a little, often a very great deal; yet in most villages the position of the money-lender is not very strong and the zamíndár holds his own. The Muhammadan transferees who are not members of agricultural tribes are generally of menial caste. Kashmírís have acquired a great deal of land and in some villages there are skilled carpenters who amass money. Every menial whose work has a cash value outside his own village endeavours to save enough to buy a little land and to improve his social position.

Fraudulent enlistment is very common and there are many soldiers, and some native officers, who are accounted menials in their own villages. To such men as these landlessness is a constant disgrace and a constant danger, and they strain every nerve to acquire a little holding of their own, that they too may be accounted zamíndárs.

The cause of indebtedness is seldom extravagance. Debauchery is almost unknown and is strongly condemned by public opinion. Extravagance in marriages and festivals, and above all in litigation, is a common cause of debt, but the principal cause is simply misfortune. Holdings are so small and the margin of safety so narrow, that any misfortune may plunge the zamíndár into debt from which he can never extricate himself. A series of bad years, the death of cattle or mere carelessness may lead to debt, while in the best years the surplus produce is so small that the interest is paid with difficulty and from the principal there is no escape. As an almost universal rule the revenue is paid by borrowing, and though the revenue demand is not heavy yet where the acres are few and the family large, no revenue demand of any kind can be paid without some distress. The tahsil is generally prosperous, but the prosperous zamíndár is the man who has sources of income other than his land. Where there are no other sources it is rare indeed to find any family prosperous.

In Ráwalpindi these conditions are varied. While members of agricultural tribes have acquired more than half the property sold,

the purchasers are no longer principally soldiers. The purchase money has been earned in the city. Carters, contractors, artisans and day labourers all aspire to buy land. The zamíndár too does not cling to his land with the fierce grip of the ordinary Punjab peasant. Especially round Ráwalpindi land is regarded almost as a fluid asset and is readily bought and sold. An able-bodied man can always live and keep his family, and the land often seems to slip away without any reason for it. Small holdings and pressure on the soil are no doubt the main cause of alienation, but extravagance is common and debauchery far from unknown. The pleasures of Ráwalpindi have ruined many large owners. Litigation and crime too have led to wholesale alienations. The Khattars are, perhaps, the most extravagant of all the tribes. Sayads press them close. Rájpúts generally, and, in a less degree, Gakkhars are extravagant in their marriages and social expenditure, and careless in their dealings with the money-lender. Hindu alienees mean almost entirely Khatris and Jains. Brahmans do not acquire land and are hard put to to keep their own. Most of the Hindús are money-lenders, but near Ráwalpindi Hindu contractors and officials are acquiring land. The latter, however, prefer to buy land outright and not to take on mortgage. Indeed mortgages are popular only with money-lenders. The Halál mortgages of Gujar Khan are almost unknown.

In the Kahru Circle and in the hills the money-lender as usual has the greater part of the mortgages, but that is only because the zamíndár does not care to take land on mortgage. As regards sales the zamíndár everywhere holds his own. The struggle is hard and unceasing, but indebtedness is not excessive. The Hindu trader occupies a subordinate position. In the hills there are very few shops and those which exist are very small and petty. The two causes of the alienation of land are undoubted distress and the desire to concentrate holdings. In the Kahru and Pahár Circles life is often very hard. Holdings are small, the soil often poor, forest rules press heavily and many villages are much embarrassed. In the hills Sattis and Dhanials make a living, but not more than a living. The other two tribes, Dhunds and Kethwals, and especially the Dhunds, are actually prosperous. It may be said generally that where there are no extraneous sources of income conditions of life are hard all over both Murree and Kahúta Tahsils. Most of the owners of the four principal tribes own land in several villages, often in many villages. The tendency to sell in distant villages and to buy nearer home is one that is increasing. In former days, when the people were wholly pastoral and wandered about the hill sides, they cultivated a little land wherever they built a house and stalled their cattle. Now they are drawing back more and more on individual villages, where they attempt to increase their holdings. For the whole district the total transferred since settlement was about 32 per cent.

CHAP. II.A.
Agriculture
Land transfers.
Agricultural indebtedness.

of the cultivation, mortgages accounting for 13 per cent. and sales for 19 per cent. Money-lenders acquired 3 per cent. permanently and 3 per cent. by mortgage.

On the whole though the struggle for livelihood is hard, indebtedness, general in all tahsils, is not serious, nor are alienations alarmingly numerous. The average landowner is not burdened with debt, and his credit is good. Though the Alienation of Land Act came just in time to prevent Hindu money-lenders in Gujar Khan from obtaining a very strong grip on the land, the agricultural tribes everywhere are holding their own.

The rates of interest now commonly obtaining in the district are—

When the loan is secured on moveable property, such as jewels, precious metals, deposited with the lender, and the borrower is a merchant or trader, from eight annas to one rupee per cent. per mensem, or 6 to 12 per cent. per annum. When the borrower is a zamíndár, from twelve annas to two rupees per mensem, or from 9 to 24 per cent. per annum is charged.

When the loan is secured on land, traders and money-lenders among themselves take from 6 to 24 per cent. per annum, from zamíndárs from 12 to 37·5 per cent. Similar rates are charged on bonds, one anna per rupee being first deducted from the capital amount, and one anna per rupee of interest being given up by the banker when striking the balance due.

When the money is borrowed on land, however, interest is not usually paid in cash, but possession is either given to the mortgagee, or a share of the produce is given by the mortgagor, who remains in possession, to the mortgagee, usually amounting to one-half of the crops.

When grain is advanced to zamíndárs, the rate of interest depends on the degree of necessity under which the loan was taken; the amount charged varies from ten sèrs per maund in easy times, up to one maund per maund, when the pressure is great, to be repaid from the next harvest.

Working of Land Improvements and Agriculturists' Loans Acts.

The amounts given under the Agriculturists' Loans Act and the Land Improvements' Loans Act are given in Table XX of the Statistical Volume. Loans, under the former Act are mostly in petty grants and ostensibly for purchase of bullocks or seed. They accordingly vary with the prosperity of the district. In the famine year, 1899-1900, they reached a very high figure. The loans for land improvement are generally applied for only in Ráwalpindi and Kahúta Tahsils and are chiefly for the construction of wells and embankments. The amount loaned is small. Little room is left for agricultural improvements to which such loans can be applied. Wells and jhalars can be made only along the edges of the ravines.

Ordinary embankments, which are a necessary feature of the agricultural methods of the district, are constructed by the joint labour of the zamíndár and his friends, and larger embankments, for which takkavi would be necessary, have already been constructed wherever possible. Loans are generally faithfully applied to the purposes for which they were granted, and repayment is on the whole punctual. There are no agricultural banks in the district.

CHAP. II, A.

Agriculture

Liv-stock.

Statistics of agricultural stock in the district are given in Table 22 of the Statistical Volume.

Horned cattle

The breeds of horned cattle of the district are not good. Hill cattle are hardy but small. Those in the plains are inferior to those of many other parts of the Punjab. Little care is taken in breeding them. Round the village of Jatli, west of Gujar Khan, there is a distinctive breed of cattle, which enjoys a high reputation in the Punjab. The breed is, however, dying out, and though there is still some trade with the Central Punjab, yet good Jatli bulls are now rare. In the few villages in which the cattle are still bred great pains are lavished on them, and high prices are still obtained. In the Khuddar tract of Gujar Khan, near the Jhelum, there is a great deal of grazing, and many cattle and still more sheep and goats are bred for sale. In the neighbourhood of Ráwalpindi city, the demand for milk has stimulated the keeping of milch kine. They are stall fed and the milk is carried in twice a day. Sometimes the zamíndár carries in the milk himself, sometimes he deals through a contractor who is nearly always himself a zamíndár. The profits in this milk trade are considerable. The similar trade with Murree sanitarium is very profitable. With these exceptions and a few animals kept as pack animals cattle are not kept for profit. There is no trade in cattle or in *ghi*. Barely enough cattle are kept to supply the people with milk and to work the plough. Bullocks used in ploughing are worked from their fourth year, and generally last till they are from 10 to 16 years old. In April, May and June, plough bullocks get *bhúsa*, or chopped straw, and while in work half a sér of *khal*, or oilcake. Bullocks used as beasts of burden usually get a small feed of grain daily as well.

In July and August they are fed on green grass, and from September to March on the straw of autumn crops, known as *tánda jowár*, *bájra*, *missa* (the straw of *moth*). Favorite and valuable animals are also occasionally allowed to graze in *jowár* and *moth* fields when the crops are still young. *Sarson*, and occasionally young wheat, are also used as fodder for bullocks. In the hills more grass is used and less of other kinds of fodder. The price of plough cattle varies very greatly. A plough bullock may cost from Rs. 25 up to Rs. 100. Their price has risen much of late years. Cattle used for carts rarely cost less than Rs. 40 each, or Rs. 80 per pair.

CHAP. II, A.
Agriculture
Horned cattle

Carriage throughout the district, immediately that the main roads are abandoned, is entirely conducted by means of beasts of burden, camels, mules, donkeys and bullocks; the unmetalled roads of the district are usually unfit for wheeled traffic.

The cows of the district are not good milk givers. Attempts have been made to improve the breed of horned cattle by the introduction of well-bred bulls from Hissár, but not with much success, these animals being too big for the indigenous breed; the importation of some small, strong, well-bred bulls, however, would probably do much good. Cows for milk are freely imported from other districts; those belonging to the tract give from half a sér of milk up to five sérs per diem. The hill cattle give very little milk. A cow in the Murree hills, of indigenous breed, giving as much as one sér of milk a day is a rarity.

Cows drop from 4 to 7 calves, before going barren, and cost very various sums from Rs. 5 to Rs. 40. Cows, when not in milk, are frequently used for ploughing as well as bullocks in the Ráwalpindi District.

Cattle diseases are at times very prevalent in this district, and are often very fatal. Eleven different diseases are reported to be known. The most fatal are:—

Gari or *ghotu*, a swelling of the glands; animals thus affected rarely survive. The only attempt made to cure it is by pronouncing spells over the animal. It is infectious.

Tok or *taku*, which comes at all seasons; the animal ceases to eat, the body swells, and skin becomes limp, and the temperature falls.

Bari zahmat, or *wah*, a kind of dysentery. *Wah* also is now used for rinderpest.

Mokhur, the foot and mouth disease. Animals affected are carefully separated from the others.

Pharún, accompanied by cough.

Dhakh, a disease of the mouth.

Ching, *pilchi*, *tah* and *tili*, the last disease of the spleen, are vernacular names for less common affections. When kine are affected with *mokhur*, it is considered very beneficial to hunt down a jackal with dogs, and then to drag his dead body round the affected animals.

The buffaloes of the district, like other horned cattle, are of inferior breed. Male buffaloes are used for ploughing, and more commonly in the working of wells.

Cow buffaloes give more milk than cows, from two sérs up to as much as twelve sérs per diem, and drop from five to eight

calves. They are fed much as other cattle; milk buffaloes are more carefully looked after when in milk than other kinds. Milk buffaloes cost from Rs. 15 upwards; even Rs. 100 will be given for a very good one. The male costs much less, from Rs. 12 to Rs. 40.

Camels.

Camels are kept only in Gujar Khan, in the Kandhi Soan Ilaka of Rávalpindi and in the Kallar Kahúta Iláka of Kahúta, and are fairly equally distributed between the three tracts. The total number is rather less than 3,500. Valuable though they are in a district where the absence of metalled roads makes wheeled traffic impossible the diminution in waste area causes their numbers to decrease steadily. They are in this district a very fair breed, and bring in large profits to their owners. They are not used in agriculture.

Camels are made to carry light loads when two years old, and are considered full grown at seven years. While still at the mother's foot, the young camel is known as *toda* or *lihák*; from this period up to two years as *chhattar*, when three years old as *tirhán*; four years *aok*; five years as *chocka*; six years as *chhigga*; seven years and upwards as *jawán*. They usually work until twelve years old. They browse on trees and shrubs, such as *jand* and *phulaa*, and occasionally get *tárámíra* and green *moth*, of both of which they are very fond. The price varies from Rs. 30 to Rs. 120; a fair average beast can be purchased for Rs. 70 to Rs. 80. The camels of this district are rarely ridden and do not make good *sawári* camels, but they are strong and enduring, and excellent beasts of burden.

The diseases from which camels suffer much in this district are—*Múwára*, *malli*, from cold or wind stroke.

Akar, under which the animal becomes almost rigid.

Joga, a very fatal disease, considered very infectious, in which the whole body swells, and the animal cannot eat.

Pira, accompanied by eruption on the skin.

Sheep and goats.

Large flocks of sheep and goats are kept in certain tracts of the district, especially in the Murree and Kahúta hills. They are profitable in many ways, but are valued especially as providing manure which is much more valuable than that of horned cattle. It would be correct to say that the manure of browsing animals is weight for weight three times as valuable as that of horned cattle. In the hills, where manure is everything, the people will not abandon their flocks, and their greatest grievance is that browsers are excluded from protected forests. Great damage to forest growth results from the presence of these browsers, common grazing lands are being denuded and laid bare, while friction with forest officials and wilful breaches

CHAP. II.A.
Agriculture
Sheep and goats.

of forest rules continue to increase rather than to decrease. Where holdings are so small the purchase of cattle is a serious and often impossible investment. But every one can acquire a goat or two which breed rapidly and soon grow into a respectable flock. Goats are of a very inferior breed. In a few villages in Murree where the Khagani graziers used to settle for several months each year the goats are of the large Khagani variety, but generally the stock is poor. Goats are kept for their hair also. Their young furnish meat for their owners, and the female goats continue to give milk after their young have been taken from them. "Chhats," "boris," or large packing bags much used in the district are made from goats' hair. A goat fetches from Re. 1 to Rs. 8 for a very good one giving a large amount of milk.

The breed of sheep is the short tailed Hazára variety. The dumba, or fat tailed sheep is never met with. It does not thrive in the Murree hills as it requires a good deal of grazing and a warm climate. Sheep are kept for their wool and for their produce. Blankets are made from their fleeces. They fetch from annas 8 to Rs. 3. The export of wool and hair is very trifling.

A disease known as *phrikki* or *tainki* is often very fatal to both sheep and goats; the zamíndárs know no remedy for it, and it comes on and proves fatal in a very short space of time, the animal often succumbing as if shot.

Paun or *khárish* is a sort of mange.

Zahmat or *wáli*, is a kind of dysentery.

Thandi is a disease of mouth accompanied with cough.

Phrikki or *thandi* is considered very infectious.

Another affection, of which the symptoms are great debility, inability to eat, and general collapse, is known as *budhi*.

Horses.

Ráwalpindi District was famous for horse-breeding as long as it contained the Fattehjang and Pindigheb Tahsils. Now that these tahsils have gone to Attock District, the glory has departed. There are in the district as at present constituted no large owners to whom horse-breeding appeals or whose position demands that they should keep up a stud. Holdings are small, and to the ordinary zamíndár horses are useless except for show. He does not require them to ride, and they are not employed in any way in the husbandry of his fields. He can only keep them to sell at a profit. A certain amount of this purely mercenary horse-breeding is done, and is much encouraged by the Horse Fair held every year in Ráwalpindi. In the last year or so there has been a good deal of improvement. The drain of mares to

CHAP. II, A. — Agriculture — Horses.

the canal colonies has ceased, as colony replacements are now made up from the colony itself. The class of brood mares is very fair, and young stock are steadily improved as the strain of Arab blood in the district becomes more pronounced. But the district is not a great horse-breeding tract. A few ponies are kept by the Murree zamíndárs, who make a good of profit by hiring them out for riding in and about the sanitarium. The Army Remount Department keeps up 8 stallions in the district and the District Board 6. The district forms part of the Ráwalpindi Circle of the Army Remount Department, the other districts in the circle being Attock, Hazára, Jhelum and Gujrát.

Mules.

The average zamíndár prefers to breed mules which require less care and cause less trouble and anxiety. He can sell them without difficulty at an early age, and can actually get a higher average price than he can for his horses. At the worst if they are left on his hands they are better beasts of burden than horses or ponies, and he can easily find employment for them on the carrying trade which goes on over the many kachha roads of the district. The district is perhaps the best mule-breeding district in the Punjab or the whole of India. Mule-breeding is probably one of the most lucrative industries in the district. It is followed by zamíndárs in all the plains tahsíls. The profits to be made have attracted many Khatrís too, who are both breeders and dealers in the young stock raised by others. Donkey stallions number 54 and are of the Italian, Cyprian and country breeds. The policy of the Army Remount Department, who supervise the breeding, is to eliminate the Cyprian series, and to adopt stallions of a stout "churby" type. American stallions are being tried, but they have with Cyprians the fault of being too big and giving stock too high in the croup. The stallions finally adopted will probably be either Italian or country bred. The pony mare stock is fair, but the breeder pays too little attention to its upkeep. He is content with the present rates of profit and does not look forward.

A good deal of the young stock, especially in the east, is bought up by outside dealers, especially the Khatrís of Domeli and Dhudhiál in Jhelum District, but by far the largest proportion is bought up by the officers of the Army Remount Department, who tour through the district, or is sold to officers and dealers at the Ráwalpindi Horse Fair.

The class of mules bred in the district is probably the best in India. The animals are fit for all purposes and are drafted the best to the Ordnance, the rest to the Transport Department.

Donkeys.

There is nothing peculiar about the donkeys of the district. In a tract with so few roads suitable for cart traffic and with so little waste for camel grazing donkeys become valuable, and are kept in large numbers.

CHAP. II, A.
Agriculture
Donkeys.

The following table shews the distribution of horse and donkey stallions throughout the district :—

Tahsil.	Name of stand.	Detail of Horse Stallions.						Detail of Donkey Stallions.								Detail of District Board Horse Stallions.	
		Norfolk tratter.	Arab.	Half-bred.	Thorough-bred English.	Australian.	Total.	Italian.	Panjabi.	Cyprian.	Arab.	Horse-bred.	Catalonian.	American.	Total.	Arab.	Total.
	Ráwalpindi	.	1	.	3	.	4	4	4	5	..	1	..	2	16	1	1
	Saidpur	...	...	.	...	...	...	...	..	2	...	...	...	...	2	...	...
	Sangjáni	...	...	...	...	...	.	1	1	1	.	...	...	...	3	1	1
	Banda	.	...	...	..	...	...	1	1	1	...	...	1	..	4	1	1
	Rewat	.	.	.	...	1	1	1		3	..	...	1	...	4	1	1
	Dháriwál	.	...	...	...	...	...	...	1	1	...	...	..	.	2	...	...
	Thallián	.	...	...	.	...	...	...	.	2	...	.			2	...	...
	Usman Khattar	...	...	...	...		...	...	2	..	...	...	..		2	...	..
	Adiála	...	..	...	...	...	..	...	...	2	.	..	...	...	2		...
	Kalián	...	..	..	...	...	..	...	1	...	...	...	...	...	1	...	...
	Gujar Khan	..	2	...	1	...	3	1	..	2	..	.	...	...	3	1	1
	Mandra	...	..	...	...	...	...	1	...	.	...	..	...	.	1	...	...
	Jatli	...	..	...	...	...		1	2	...	..	...	1	...	4	...	...
	Kahúta	...	...	..	...	...	..	1	1	1	...	...	..	...	3	1	1
	Kallar	...	...	...	...	...	...	...	1	1	..	..	...	..	2	...	...
	Murree	..	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...
	Karor	.	...	...	...	...	.	...	1	...	...	...	...	...	1	..	...
	Chhattar	...	...	...	...	...	...	...	1	1	..	..	...	...	2	...	...

The following account of the rise and growth of the Ráwalpindi Horse Fair is taken from the Gazetteer of 1887 :—

Ráwalpindi Horse Fair.

The Ráwalpindi Horse Fair was instituted some years after annexation, and was called the Núrpur Fair, from a place of that name situated at the foot of Hazára Mountain, where there is a tomb of great celebrity visited by thousands of pilgrims, and a fair is held in honor of the Muhammadan Saint Sháh Latíf Bari. It was originally proposed that the Ráwalpindi Horse Fair should be held at the same time and place, but it was found impossible to

CHAP. II, A.

Agriculture

Ráwalpindi Horse Fair.

be held there at the end of the month of March each year, on an open space on the west of the city of Ráwalpindi. At the fair horses and mules are exhibited. When the fair was first established, the number of animals exhibited seldom exceeded 50 or 60.

In 1856 the amount of prizes awarded was increased to Rs. 1,000, and owing to the subsequent increase in the value of prizes, and the good prices realized from purchasers, the number of animals exhibited has largely increased. The conditions then laid down were, that the young stock must be the produce of some Government stallion, born in the Punjab, and under three years old; that the prize-winners should become the property of Government, and be sold on the spot to the highest bidder. In the event of a larger sum than the prize being obtained by sale, the difference was to be given to the owner; but if less, the loss to fall upon Government. Proclamations in Panjábi and Hindi to the above effect were issued throughout this and the neighbouring districts, but the results were not great. In the following year, 1857, about 50 colts and fillies, born and bred in the Punjab, competed for 13 prizes aggregating nearly Rs. 1,000; 25 full grown horses also appeared from Lahore and the more southerly districts, and 23 Kábul horses. The Ráwalpindi and Gujrát Districts each won four prizes, Jhelum carried off two, while Lahore, Siálkot and Gujránwála each took one.

4 prizes ... / 6 consolations ...	for 3-year old colts.
Do. ...	for 3-year old fillies.
4 prizes ... / 14 consolations ...	for 2-year old colts.
Do. ...	for 2-year old fillies.

During the next year (1858), there was a great improvement both in quality and quantity, the number of animals of all ages being 554; and it was found advisable to submit a new scale of prizes on a more liberal scale as indicated in the margin, making altogether 16 prizes and 40 gratuities aggregating Rs. 1,480. It was at the same time proposed to exclude yearlings from competition. These measures were sanctioned by Government, and as it had been found very inconvenient to award the prizes at Núrpur, they were given at Ráwalpindi for the first time. In the course of this year (1858), the Deputy Commissioner strongly recommended the removal of the horse fair altogether from Núrpur. Being held at such a distance from the cantonments, military officers could not always go out there, and other reasons being urged, Government approved of the recommendation. Accordingly the fair was held next year (1859) at Ráwalpindi, but it was not well attended, owing partly no doubt to the change of site and also to the early date upon which the Ramzán fell. From the records of this period it appears that the horse-breeders were somewhat disappointed in the prices realized for their good Dhanni breed, and that several of them had turned their attention more to mule-breeding. The perseverance, however, of the local

CHAP. II, A.
Agriculture
Ráwalpindi Horse Fair.

authorities, and their successful efforts in obtaining some good Government stallions, once again led the people to devote themselves to horses rather than mules.

The next horse fair of 1860, which was held early in May, showed good results, when, out of 300 exhibited, 39 colts and fillies of Arab stock obtained prizes and gratuities to the amount of Rs. 1,230. Thirty-four horses were sold at an average of Rs. 202. Of these six were by Arab sires, the rest by country sires; fifteen of the thirty-four were bought for the Irregular Cavalry. The committee of judges declared that they had never seen such an improvement within so short a time, and were of opinion that a finer lot of colts and fillies than the prize-winners could not be found out of the studs. Twenty-two of the successful exhibitors belonged to the Ráwalpindi District, 17 to Jhelum, and a few to other districts. The improvement thus clearly seen in 1860 was continued in 1861 and subsequent years. In 1861, 400 colts and fillies attended the fair, all of good quality. The best fillies came that year from Jhelum. With the concurrence of the Commissioner and Committee, the number of prizes was this year increased, while their value was reduced, the highest being Rs. 75, the next Rs. 50, and the third Rs. 25. The distribution of several gratuities or consolations, especially during this year of great scarcity, gave great satisfaction to the exhibitors. From the returns it appears that the Jhelum District horse-breeders were most successful in 1860-61, but that the Ráwalpindi District then took the lead and has retained it ever since. The largest number of mules ever brought to one of these fairs was 183 in the year 1871, when an average price of Rs. 161 per mule was realized. The district of Ráwalpindi contributed 153 of the whole number. In the first years of the fair the encouragement given to mule-breeders was almost *nil.* Subsequently a demand sprang up, and the Abyssinian campaign gave a marked impetus to mule-breeding. The fair now attracts a large number, and good prices are obtained.

The fair now ranks as one of the best in the Punjab and draws exhibitors from all the surrounding districts. The last day of the fair is regarded as a gala day by the whole district, and concludes with an exhibition of tent-pegging and lime-cutting. The fair is usually held during the last week in March, when there is an abundance of "khasil" or green corn available for fodder. The show ground is a large open space beyond the Leh river on the west of the city. Temporary railings of bamboo and rope are erected which mark off the lines for each class of animal. The judging of the various classes is done in a permanent circular enclosure. The examination generally lasts for four days and is done by a Committee consisting of selected Cavalry and Artillery Officers. The relative merits of each animal are ascertained by a system of marks prescribed by Government.

CHAP. II.A.
Agriculture
Ráwalpindi Horse Fair.

The following table gives the number of animals exhibited, the number of animals sold, and the amount of prizes given from 1882 to 1907 :—

Years.	Number of animals exhibited.	Number of animals sold.	Amount of prizes given.	Years.	Number of animals exhibited.	Number of animals sold.	Amount of prizes given.
			Rs.				
1882	2,421	1,002	1,750	1895	2,143	2,087	1,930
1883	1,394	819	2,000	1896	2,560	2,334	2,200
1884	1,375	846	2,000	1897	2,625	2,091	2,300
1885	1,582	1,089	2,000	1898	2,356	1,920	2,350
1886	2,674	1,003	2,055	1899	2,890	2,531	2,130
1887	2,947	1,244	2,000	1900	2,730	2,388	2,225
1888	3,072	2,082	1,500	1901	3,370	2,796	2,445
1889	3,055	1,820	1,800	1902	3,019	2,295	2,500
1890	3,011	1,896	1,665	1903	3,007	2,394	2,445
1891	3,544	1,720	1,775	1904	3,440	2,858	2,410
1892	2,302	1,850	1,700	1905	4,963	4,505	2,245
1893	1,898	1,853	1,800	1906	4,709	3,235	2,550
1894	2,278	1,872	1,800	1907	3,657	3,300	2,480

The success of the fair varies with the circumstances of the year. Plague or a succession of bad harvests affects the number and condition of the animals shown, but the show has always had a great reputation. The fair of 1907 was classified by the Judging Committee as "Excellent," being the only show in the Province to which this distinction was awarded. Plague which was raging in the surrounding districts occasioned a considerable decrease in the number of animals present, but the show was still very successful.

Wealth of the District live-stock.

The district is not rich in live-stock. In Gujar Khan Tahsil the proportion per plough is 4 horned cattle and 3 browsers, in Ráwalpindi 5 horned cattle and 5 browsers, and in the Murree and Kahúta Tahsil 5 horned cattle and 6 browsers. There is no marked superiority in the proportionate wealth of cattle between the hill and the plain tahsils. But the proportion of plough cattle varies. In Gujar Khan there are only 1·1 bullocks per plough, while in Ráwalpindi Tahsil there is nearly a full yoke of bullocks to a plough. In Gujar Khan the use of cows and donkeys in the plough is common. In that tahsil holdings are so small that the cultivators often keep only one bullock trusting to be able to borrow at ploughing time, while the practice which exists of zámíndárs working in the fields as far as possible together makes it possible for a cultivator who is not fully equipped with stock to carry on his work with the help of his friends.

Domesticated bees are found in the Murree hills only. Wild bees are found in other parts of the district.

CHAP. II.A.
Agriculture
Bees of the Murree hills.

The bees found in the Murree hills are of much larger size and are quite different in their habits from those of the plain tahsils of the Ráwalpindi District. The following descriptions of their habits have been gathered from the bee-keeping zamíndárs of Murree and from personal observation :—

The hives or houses occupied by the bees, are constructed of baked mud in a cylindrical shape, on the average about 8 inches in diameter at one end, and 16 to 20 inches in diameter at the other, and some 15 to 20 inches in length. A hole to fit the smaller end is then made by the intending bee-keeper in the wall of his house, and in this he inserts the hive. He then closes up the larger end which projects towards the inside of the house with a sort of basket, generally made of grass and mud, and closes up the smaller end with *kachcha* mud, leaving only a small hole, about 1 inch in diameter for the bees to come in and out at. Having prepared their house for them some time in April (Baisakh), the bee-keeper proceeds to smear a mixture of rough *gur* and milk over the mouth of the hive. Some ten or a dozen bees first alight upon this, and, if it suits them, remain a few days. These bees are known as *lihari*; they then fly off again, following one of their number, it is said, as a leader, and presently return with a swarm of bees known as *ghim*, and these gradually enter the hive and make their home there. After a few days they begin to fly about and suck sap from trees and flowers, and construct their combs (*pukha*). These are completed in about fifteen days, and then the young are deposited and fed with extracts from the trees, flowers, and so on.

The young become full grown in May, and then all swarm off elsewhere, leaving the old bees in possession, and these then begin to glean honey from various fruit trees and shrubs, and fill their combs. This process is completed by from the 15th October to the 15th November. The original comb is first filled, and then the honey runs down and fills a sort of second comb, known as the *chaia*.

The honey is taken out by first making a small opening in the back of the *tári*, as the hive is called, and burning some old cloth beneath it. Some bees are killed in the process, but the majority fly out of the orifice and cluster against the wall just outside; the honey-comb is then removed from the back, and then it is again closed up. In places where the winter is not too cold for the bees to remain, only two-thirds of the honey is taken out, one-third being left to keep the bees during the winter. In other cases it is all taken. The hives generally contain from 4 to 8 pounds of honey each, with from 1 to $1\frac{1}{2}$ pounds of wax. These are separated off from each other after extraction, and the honey is sold at from 4 to 6 pounds a rupee, the wax at from 4 to 5 pounds, uncleaned, and when cleaned at a rupee a pound.

CHAP. II, A. Agriculture. Bees of the Murree hills.

Except in portions of the Ráwalpindi Tahsíl, where bees are occasionally kept in the same manner as in the Murree Tahsíl, the bees of the plain portion of the district are wild, and do not make their homes in hives of any kind.

In March or April these bees, which are not much bigger than a common fly, begin to build their combs round the branches of trees or on projecting rocks. First, the comb is built round the branch and then a portion is built pendent below it. This latter portion is known as *pukha*, the former is the *chala*. The young are deposited in the *pukha*. The old bees hive over all parts of the comb. The young swarm off in May-June, and the old bees then go off to seek a cooler place, but continue to draw honey from the original comb. They do not make any honey during the hot season. Then, in the end of August-September, they again commence building a new comb, have young and store honey up to about 15th November, about which time the young swarm off. Then the bees go off again to seek a warmer clime, eating the honey from their old comb for the next four months which brings them round to April again and completes the year. Immediately after the 15th November is the time when the honey is mostly collected and sold. This honey is considered of good quality, and fetches a higher price than that made in the hills. It is sold at about 1 to 4 pounds a rupee, and the uncleaned wax is sold at about 10 pounds the rupee.

Irrigation. Canal irrigation. System of cultivation. Nahri.

The nahri cultivation of the district is confined to four villages in the extreme north of the Ráwalpindi Tahsil. Their names are Usman Khattar, Bhallar Top, Garhi Sikandar and Salargah. Through the middle of them runs the Haro river, which having its rise in the Haripur Tahsil of the Hazára District, runs through the Attock Tahsil of the Attock District to join the Indus. Each of the villages has a separate watercourse and a separate embankment in the stream. The water-supply is abundant; even more, it is excessive. Water disputes with the upper villages are unknown. The Attock villages lower down are not so fortunate, but in spite of constant disputes and adverse legal decisions, the Ráwalpindi villages seem to hold their own. It is unfortunate that the canal system of the Haro river should be in three districts and in two Provinces, but the Ráwalpindi villages suffer no loss and are never likely to be in want of water. The dominant personality on the Haro is the Gakhar Rája of Khanpur in Hazára, but with him the Ráwalpindi villagers have no dispute. The Attock villages are less happy, but as the Khánpur Iláqa must necessarily remain in the North-West Frontier Province, there would be small gain to the administration by transferring the Ráwalpindi villages to Attock, while the transfer would be bitterly resented by the villages concerned. At present the water-supply needs few arrangements and gives no trouble. A code of rules was drawn up at last settlement, but the general rule seems to be

CHAP. II,A.
Agriculture

that every man takes as much water as he likes, and when he has finished he sends the water down to his neighbour. Clearances are carried out by common agreement and are done with the spade. The crops suffer more often from flooding than from drought. In the canal tract the holdings are generally very large and the owners are men of influence. This no doubt has its effect in preventing disputes.

Irrigation from springs.

Irrigation from springs and streams is unknown in Gujar Khan Tahsil. It is common everywhere in the hills, but in Ráwalpindi Tahsil is confined almost entirely to the villages lying under the Margalla range, and is fed by springs in these hills. There many of the springs are under the protection of saints and are places of pilgrimage. The largest of all the springs is at Saidpur, north of Ráwalpindi, and this gives water to several villages. All this submontane spring irrigated land is excellent and much of it is under garden cultivation. Elsewhere this class of irrigated land is not so valuable. Water is everywhere abundant, much of the land is water-logged, and grows nothing but rice.

Irrigation from wells.

There is no well irrigation at all in Murree Tahsil and the Kahúta hills In Kahúta Tahsil the total chahi area is only 64 acres. Most of the wells are close to Kallar on the banks of the Kanshi, and all of them are sunk only in patches of alluvial land near the various streams.

The wells in Gujar Khan Tahsil are almost invariably sunk on patches of alluvial soil which form in the beds of torrents where they broaden out. There only is well sinking possible. Water is generally near the surface but is never abundant, and except in years of extraordinary rainfall the wells cannot be worked day and night; the area commanded by the wells seldom exceeds two acres and is generally much less. The average area attached to wells and *dhenglís* does not exceed one acre and the average sown area does not exceed two acres. Wells cost little to make, they are never deep and are lined with uncemented roughly hewn stone. Stone to line the wells is everywhere procurable. Wells of this kind differ materially from the ordinary Punjab wells, in that they are only holes in the ground lined with stone, the well cylinder not being sunk down into the water-bearing strata. The average cost of a well is from Rs. 100 to Rs. 125; *dhenglís* costing from one-quarter to one-half of that sum. The woodwork of a well costs about Rs. 40. Generally one bullock, or more commonly one buffalo is sufficient to work the well and there are never more than three well cattle. The ropes are made of any available materials *Munj* grass, if available, is the best, but rushes cut in the torrent beds, wheat straw or hill grass imported from Kahúta are all used. The well lands are always minutely sub-divided. Well owners are generally Malliars, who belong to the same class as the Arains of the central Punjab, but if the owners are no

Malliars the well is often leased to Malliars for cultivation. Well cultivation is exclusively of a market garden character. The land is given no rest and large quantities of manure are indispensable. All the cattle manure is hoarded up and put on the land. The well cattle are not sufficient for the proper fertilising of the land, so the manure of the cultivators' other cattle is used and where the owner does not cultivate the well he is expected to help with the manure.

CHAP. II, A.
Agriculture
Irrigation from wells.

The well irrigation of the Ráwalpindi Tahsil is much more important than in Gujar Khan. The principal well tract is on the banks of the Soan river. Throughout the course of the Soan river in this tahsil, and especially west of the Grand Trunk Road, the lowlying alluvial banks on either side are dotted with numerous wells. The soil of this tract is not superior, being generally sandy with an under-soil of pebbles, but the cultivation is very close and good, and yields are very large. Water is never abundant and the wells can never be worked continuously. On the other hand, wells are never deep, and one buffalo is sufficient to work the well wheel. Two or three buffaloes may be kept, but the number of the cattle depends on the water in the well, and one buffalo can often draw all the water that the well can give. Except along the banks of the Soan, there is no tract which can distinctively be called well-irrigated. The most valuable well cultivation in the district is along the banks of the Leh stream near Ráwalpindi itself. Here the wells are mostly in the hands of Hindu contractors and money-lenders, who sink large sums in the construction of their wells. Most of these latter wells are strictly speaking jhalárs, in that they have underground channels running to the stream and can only work to their full extent when the stream is high. Here the cultivation is extraordinarily good; manure is abundant and the profits immense. The rest of the wells in the tahsil are scattered along the banks of the various small streams. Wherever a patch of alluvial soil offers, a well is sunk and vegetables are grown. There are few wells in the Ling, which is a mountain torrent, but the banks of the Karang and the Wadála are dotted everywhere with wells. The Wadála in particular has several cases of rich wells lying among precipices and ravines, the very existence of which might remain unknown to all save settlement officials, who have to clamber everywhere, and which are altogether inaccessible when the stream is in flood. To the rule that wells are only sunk in alluvial patches near streams, there is one important exception. North of the Margalla Pass, near the Grand Trunk Road, wells are sunk in the level plain and some of the best wells in the tahsil are clustered along this strip of land. The Kharora wells are few and not so profitable as the Kandhi Soan wells. The best of them are in the corner of the circle which runs up close to Ráwalpindi Cantonment.

Except close to Ráwalpindi itself, masonry wells are not common. A trial boring is often sunk, usually by some itinerant well-

CHAP. II.A.

Agriculture

Irrigation from wells.

sinker, who uses a rough boring apparatus. If success seem assured, a hole is sunk till water is reached. The hole is then lined with roughly hewn unmorticed stone. When the cylinder is ready, a wheel is fitted and the water drawn out. As soon as the water is exhausted, digging begins again below the cylinder, so that by constantly drawing off the water and constantly digging the cylinder is sunk into the water-bearing strata. The cylinder is generally sunk until the men below can work no more. Divers are few and are seldom employed. The cost of such a well varies a good deal, but from Rs. 200 to Rs. 300, according to the depth, may be considered a fair average for wells on the Soan. The wells and jhalárs of Ráwalpindi are of a very different character. Heavy brick or stone cylinders are sunk, the stones are hewn and morticed and every effort is made to make the well a permanency. Sometimes the well is situated far from the land and the water is carried across to the fields on a masonry aqueduct. Masonry water channels, with properly made sluices, are common. Wells of this kind are made by contractors, who understand their own business and do not invest their capital except on a good prospect of return. One enterprising Hindu has sunk an artesian well at a cost of many thousands of rupees. Another has a jhalár which he works with a steam pump. Works of this kind may cost anything up to Rs. 10,000, but generally the cost varies from Rs. 800 to Rs. 2,000 each. The cost of wells other than the Soan and Ráwalpindi wells, varies between the limits of cost of the two classes of wells mentioned above. In construction and design they resemble the Soan wells, being made of unmorticed stone, while their cost varies from Rs. 300 to Rs. 400. Jhalárs are almost all of the kind described as built round Ráwalpindi and cost much more than wells because more elaborate. There are a few ordinary zamíndár jhalárs, consisting of merely a well wheel overhanging a stream, but such jhalárs are rare. Dhinglis cost very little. Rs. 50 is a good price. The woodwork of a well costs about Rs. 40. The stone unmorticed wells of this tahsil last as long as the ordinary brick wells of the Punjab. Near the famous Buddhist "top" which lies close by Mankiála Railway Station, are two wells built of large square blocks of masonry which are in use to this day, and to which tradition ascribes the same age as the "top" itself. The cultivated area per well is much higher than in Gujar Khan. This is due to the fact that the wells have more room and that there is more water in them. The average cultivated area is about $2\frac{1}{2}$ acres per well and the average cropped area about 5 acres. Good wells work up to double this or even more when water and manure are abundant.

CHAP. II, B

Rents, Wages and Prices.

Section B.—Rents, Wages and Prices.

Produce Rents.

Rents in kind are fixed by custom and are unifor over large areas. In all the plains portions of the district the most universal rent on all kinds of land is one-half. Where less share is taken there is usually some reason of relationship or friendship. In the Kahúta hills the rent rate on irrigated soils is always a third, but in Murree the rent for irrigated land varies within wide limits, the average being 42 per cent. In the hills on lipára land one-half is taken, and on maira and rakar one-third. In the Kabru Circle half is always taken on lipára and maira. On rakar the rate is one-third.

In the village of Sukho in Gujar Khan there is a little valuable lipára land on which the owner supplies two-thirds of the seed and takes two-thirds of the crop.

These customary rates are being disturbed in Ráwalpindi Tahsil north of the Soan by new conditions. Money-lenders always put up the rents to the highest figure, but the most disturbing cause is the refusal of modern tenants to render those innumerable little services which the owners were accustomed to expect from their tenants in consideration of a light rent rate. In the hills too as the people turn more and more to agriculture rents are undoubtedly rising.

These rents are nearly always the same for all classes of tenants. They are a share of the total produce or of the total produce after certain important deductions have been made. The most important of these deductions are the customary dues paid to the agricultural village menials in return for services rendered by them. Details of these deductions will be given further on. But it is by no means the usual custom to pay these dues from the common heap before division of the produce, as is done in other districts of the Punjab. In Gujar Khan and in parts of Murree and Kahúta, it is the custom for the owner of the plough to satisfy the village menials. In Ráwalpindi the practice is diverse. This matter also will be noticed later.

Cash Rents.

Except in Murree and the hill circle of Kahúta true cash rents are not common. In the rest of Kahúta and in Gujar Khan, they are practically non-existent. The recorded cash rents are due in almost all cases to one or other of the following causes:—

(*a*) Disputed transfers where the transferee pays the revenue, but the fact of the transfer is not admitted, or for any other reason mutation has not passed.

(*b*) Possession by the collaterals of the holdings of widows and orphans, the former taking the produce and maintaining the owners.

(*c*) The letting of land by owners away on Government or other service to tenants on nominal cash rents in order to ensure protection of the rights of the absentee owners.

CHAP. II, B.
Rents, Wages and Prices.
Cash Rents.

There remain, however, a few genuine cash rents in which the rent represents the value of the tenancy. In the Khuddar tract of Gujar Khan near the Jhelum, the Ghakkar owners, having large proprietory holdings, often let out their outlying lands on cash rents, as there is a difficulty in getting tenants to take up stony hill lands on a kind rental. The rents vary from Re. 1-8-0 to Rs. 2-8-0 per acre over about 200 acres, and the lands so rented are the worst in the hills, and are often broken up by the tenants. On the irrigated lands in Ráwalpindi, especially near Ráwalpindi and to a less degree on the Soan cash rents are common. On unirrigated lands there is no general custom of cash rents, but such rents do exist. The highest cash rents are paid on the chahi lands of Ráwalpindi itself and a few adjoining villages. Here most of the wells are let on competitive cash rents, which vary from Rs. 120 to Rs. 192 per acre. The average rent per acre of unirrigated land is Rs. 3-2-5, but this does not give the real competitive cash rent.

In the hills, where many, perhaps most, of the owners hold plots of land in more than one village, where a tenant class hardly exists, where land was until recently accounted of less value than cattle, and where every hill man is as good as his neighbour, it is difficult to get tenants to cultivate on kind rents. Most of the cash rents date from many years back, the tenants paying the owner a lump cash sum, known as chakota, and the owner having little further connection with the land. The cash paying tenants have usually themselves broken up the land, they regard their tenure as permanent and the owner cannot eject them. If an enterprising owner should venture to Ráwalpindi to try to eject his tenant by force of law, he sometimes finds himself called on to pay as compensation for ejectment a sum which may exceed the value of the land. The cash-paying tenant holds a very strong position, and it is but seldom that he pays a full competition cash rent. Even now, however, land is given out to new tenants on cash rents and even on very trifling rents, but the opinion of the owners is against cash rents and they resume such lands whenever they can. There will always remain a certain number of cash rents which are kept low, because the tenant is expected to serve the owner in addition to paying the rent. There are tenants who graze the cattle, cut wood and grass and run errands for the owner in consideration of paying a light rent. As a general rule it may be said that the cash rents as paid are much below the full rental of the land on which they are paid. To this there are exceptions which deserve separate notice. In the Dewal illaqa the Dhunds are able to exact much higher rents than anywhere else in the Murree Tahsil. In addition to the kind of hereditary cash rents mentioned above, land is given out for special crops at heavy rentals. Potatoes and chari are often grown on land let out for the crop and full competition rents are paid. Cash rents are much

higher in the Dewal illaqa than in any other part of Murree. This is no doubt in part due to the land being better, but it is also due to the more forcible character and the more business-like habits of the Dhund.

Cash Rents.

There is nowhere any tendency for cash rents to displace produce rents. In the hills at least the percentage of land held by cash paying tenants is steadily decreasing.

Wages.

Statistics as regards wages of labour taken from the Punjab Administration Reports are given in the statistical part of the Gazetteer. These returns are far from trustworthy, and are valuable only as showing the wide limits within which wages have fluctuated. The prices of the common food grains have only a slight effect on the wages of labour. The general tendency is for wages to rise, but the rate of increase is slow. The large increase is due to peculiar causes. Any war on the frontier or big concentration of troops in Ráwalpindi at once sends up wages. During the Kabul war all kinds of daily labour were at "famine" rates, and the recent durbars and reviews had a similar but less marked effect.

The sources of supply for agricultural labour and unskilled industrial labour are the same. The tendency is for wages of agricultural labour to be paid in cash, at the same rates as unskilled labour in the city, but the custom of mixed cash and grain payments dies hard and cash wages are by no means the invariable rule. But whenever the wages of labour in the city take a big upward leap, the cash portion of the wages of agricultural labour rises too in sympathy.

Village menials.

The percentages on the gross produce paid to menials are shown below:—

Menials.	Gujar Khan.	Ráwalpindi.	Kahúta hills.	Rest of Kahúta.	Murree.
Lohár, Tarkhan, Kumhar	4	4	4	3	2
Musalli	1	3	1	1	1
Harvesting	1	1	...	1	...
Miscellaneous menials	1	1	1	1	1
Total ...	7	9	6	6	4

Except in Ráwalpindi Tahsil, the general rule is that menials are not paid out of the common heap at all. The lapful (jhola) of bájra heads for the kharif or the sheaf (gaddi) of wheat for the rabi comes out of the common stock, but the general rule is that the owner of the plough pays the menial out of his own share of the produce.

CHAP. II, B.
Rents, Wages and Prices.
Village menials.

In the Kharora Circle of Ráwalpindi where holdings are large, the menials are always paid out of the common heap when the crop is divided on the threshing-floor. In this circle, however, the kharif kind rents are generally paid on appraisement. The owner's share is estimated and paid in a lump sum, while the tenant is left to pay the agricultural menials. In making the appraisement, however, some allowance is made for the extra burden thrown on the tenant. In the canal villages also the menials are paid from the common heap, but more generally in bundles of the unthreshed crop than in measures of grain. On the chahi and abi lands the menials are paid partly in grain and sheaves, and partly by giving them some of the uncut vegetables. Generally one irrigation bed (kiara) is given to each of them. On the chahi lands of Ráwalpindi itself no menials at all are employed, any labour employed being paid for in cash. In the rest of the tahsil, the tenant pays the purely agricultural menials, but less grain and more sheaves are given than in Gujar Khan. The sheaves are always taken from the common heap, but a custom exists of leaving a little of the grain behind on the threshing-floor to compensate the tenant and for luck.

The *kumhár* is not paid except on well lands, for which he provides the well pots. On such lands the *lohár* is not usually employed. The *lohár*, *tarkhán* and *kumhár* receive each about ten seers per plough per harvest, and in addition some four or five sheaves of wheat in the rabi and a bundle of bájra or maize heads in the kharif. The total for each is about 15 seers per plough per harvest. In the hills the rates are somewhat different. Only the *tarkhán* and *lohár* are ordinarily employed. Each gets per plough in Murree 12 seers at kharif, and 8 seers at rabi harvest; in the Kahúta hills 16 seers at kharif and 18 seers at rabi; and in the Kahru ilaqa 20 seers at kharif and 9 at rabi harvest.

The *musalli* winnows the grain and performs similar duties as well as supplying the "chhaj." He is not generally employed as a regular village servant and is usually paid for any particular service performed. He is always an expensive menial.

Reaper.

The reaper, "lihár," is not employed at all in the hills and not ordinarily in Gujar Khan, although there most zamíndárs need assistance in cutting their crops. One man cannot reap more than two kanals of wheat in a day, and though every available man, woman and child turns out into the field at harvest time, assistance is still needed. In Gujar Khan the most common practice is to combine for harvest, each zamíndár luxuriously feeding the harvesters of his fields. This is known as "letri." In some part of Ráwalpindi Tahsil holdings are large, and in all parts labour is less plentiful and assistance less willing than further south. The reaper ordinarily gets one sheaf in 21. The size of his sheaf depends on the order in which the sheaves are counted, but the reaper always

Reaper.

tries to get the largest sheaf. In a good rabi harvest labour flocks in from the hills and from across the Jhelum. A sturdy lihar in a good harvest can earn from 8 annas to Re. 1 per diem. A custom of paying in cash is coming in and is likely to spread. When cash is paid four annas per diem and the midday meal is the usual rate of payment. In the kharif harvest assistance in harvesting is not so necessary as in the rabi.

Other menials

Other menials are the mochi, the nai and the water-carrier. The mochi when paid in kind gets about half the dues of lohár or tarkhán, but is usually paid in cash for the work he does. Similarly the potter is often paid in cash, and one potter will supply a number of villages. The barber's dues vary greatly. He usually receives a share of the grain at each harvest, besides presents at marriages and other festivals.

The village menials do not occupy at all the same position in this district as in most other districts of the Punjab. They can hardly be called true village menials. The carpenter and blacksmith and *mosalli* best merit the term ; the others are practically independent of the village community, being paid by various methods for the commodities they supply. The lambardárs have little or no control over them. In some places the tailor is in fact one of the washerman (*dhobi*) caste, who also makes and mends clothes for his employers. *Kamíns*, as a rule, in this district, perform few services and receive small pay.

Prices

Information as to retail prices at headquarters for the last 40 years is given in the statistical volume from which the following figures are extracted. The prices are stated in seers per rupee.

	1861-62 to 1865-66.	1866-67 to 1870-71.	1871-72 to 1874-75.	1875-76 to 1879-80.	1880-81 to 1884-85.	1885-86 to 1889-90.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
Wheat	27	17	21	21	22	17	18	13	11	23	23	14	8	13	17	10	10	17	13	16	18	14	18
Bájra	35	20	28	28	34	22	24	17	15	27	27	18	9	17	23	10	16	22	19	23	24	15	22
Maize	...	...	29	28	...	...	18	19	16	28	28	20	10	18	28	12	17	27	20	23	26	17	12

Wheat and *bajra* are the staple food-grains in the plains. In the hills the people subsist almost entirely on maize.

CHAP. II.B.
Rents, Wages and Prices.
Prices.

The following table gives the rates (seers per rupee) approved by the Financial Commissioner on the Settlement Officer's detailed report on prices forwarded in September 1903:—

Grain.	Price.	Grain.	Price.
Maize	23	Cotton	64
Jowar	20	Wheat	30
Bájra	24	Barley	18
Moth	22	Gram	25
Múng	30	Táramíra	31
Mash	36	Sarshaf	40

These figures are based on trader's prices obtained from the books of village money-lenders recording their transactions with zamíndárs, but to get reliable records of prices from trader's books is not easy. So many elements combine to affect the prices that it is difficult to deduce the true harvest price from the books. The degree of indebtedness of the zamíndár, the condition of the grain sold, the cost of carriage, the question whether the sale is on the threshing floor or in the shop all affect the calculation.

There is no marked difference in prices from tahsil to tahsil. The markets are generally so good that prices maintain a uniform level all over the district. The hill tracts in which it might be expected that prices would be low, are tracts in which prices are maintained at a level quite as high as in the plains. The causes of variation in prices are those which might naturally be expected. They depend on the character of the harvests. 1896-97 and 1899-1900 were years of scarcity and prices were in consequence exceptionally high. But it should be noticed that after each period of scarcity and high prices when prices fall again they do so gradually and do not quite regain the normal of preceding years. The Kharif of 1900 and the Rabi of 1901 were both excellent. Prices were accordingly low. Recently harvests have been poorer and prices in consequence higher. No cause other than the character of the harvests has much influence on the scale of prices. The export trade is small. The improvement of communications has removed large local variations, but exportation never causes large or sudden changes in prices. Even in years of plenty the amount available for export is small, and in years of scarcity the nearest source of supply is the districts round Lahore. The very violent oscillations in price known in pre-railway days are now unknown, but the limits are still wide within which prices are affected by the character of the harvests. In the really productive portions of the district there is little culturable waste left and extension of cultivation is never in any year so large as to have an appreciable effect on prices. The sown area of course varies according as the rains are timely and copious or not, but new cultivation has no effect on the scale of prices.

CHAP. II, I
Rents, Wages and Prices.
Material condition the people.

Everywhere throughout the district where there are no extraneous sources of income life is hard. Holdings are small. The average size of the holdings of cultivated land in acres for each circle is given in the following marginal table :—

Circles.	Acres.
Gujar Khan	4
Kharora	7·7
Kandhi Soan	3·5
Kahúta Pahár	2·2
Kahru.	4·9
Kallar Kahúta	3·2
Murree	2·6

The margin of safety is so small that any misfortune may plunge the zamíndár into debt from which he will never extricate himself. A series of bad years, the death of cattle, or mere carelessness may lead to debt, while in the best years the surplus produce is so small that the interest is paid with difficulty and from the principal there is no escape. Yet miscellaneous sources of income are so numerous and important that the district is generally prosperous.

In Gujar Khan military service is universal in almost all parts of the tahsil. There are few villages which do not contain some military pensioners and some men still in service. Native commissioned and non-commissioned officers abound and military service is ranked high above all other forms of employment. No figures of the gross receipts from pay and pensions are available, but no doubt they many times exceed the land revenue demand. Those who cannot get military service take freely to daily labour. The roads and railways in the tahsil cause a constant demand for labour, nor does the cultivator in search of employment hesitate to travel far afield. From some villages nearly all the able-bodied men go out every cold weather to join the Survey Department as Khílasís. Volunteers are easily obtained for service in every part of the world—East Africa, China, Somaliland, Australia, all draw contingents from Gujar Khan. A few villages in the north-east corner have taken to stoking for a profession and nearly all British steamers sailing from Bombay carry Gujar Khan stokers on board, while the Pothwári dialect of Gujar Khan can be heard on the lower decks of every P. and O. boat.

The Ráwalpindi zamíndár lives by his outside income. His land alone is not sufficient to support him. Military service has no attractions for him, partly that he can make more at home, and partly that he resents the regular life, the separation from his home and the discipline, and partly because military service must be made attractive to be popular. There are hardly any Native Officers in the tahsil and no zamíndár likes to go away from home except under the protection of some superior. The life of the whole tahsil centres in Ráwalpindi city and cantonment. The great arsenal, the Railway workshops, the Commissariat supply stores, and the city factories all draw their labour from the villages around Pindi. The roads and railways running through

CHAP. II.B.
Rents, Wages and Prices.
Material condition of the people.

the tahsil provide constant labour. Eggs, milk, wood, and, above all, fodder find a very ready and very profitable sale. The camping grounds are nearly always full of troops and the villages far from Ráwalpindi can sell their fodder nearer home. Fodder, however, comes in from all parts of the tahsil and it is remarkable to notice the distance from which zamíndárs carry in supplies to the Ráwalpindi market. On the Margalla Range are the Military Grass Farms, and the cutting and storing of grass provides thousands with an occupation. Several villagers, especially the Telís, live by grass-cutting for the officers in the cantonment. Miscellaneous labour of all kinds is readily procurable. The supply is not equal to the demand, and from distant tahsils and even from the Jammu and Punch States men flock into Ráwalpindi. The increase in the number of carts since settlement is very large. The principal carting traffic is with Kashmír, but all round the cantonment, and in the season on the Murree road, the Ráwalpindi carts ply for hire. Many who do not keep carts hire out their bullocks in the slack season and so add to their incomes.

Similarly around Murree sanitarium the Dhunds and Kethwals are very prosperous. They live on the cantonment and civil station and on the Kashmír road. They keep carts, hire out bullocks, sell milk and every kind of agricultural produce, including wood, which is generally stolen. They do some day labour, but not a great deal. Many hawk about fruit, potatoes and vegetables for sale. Keeping ponies for hire is a very profitable source of income to some of the worst villages. Others have more disreputable sources of income in connection with cantonments. The effect of the sanitarium is felt throughout the tabsil, but the greater part of the profit goes to the villages near by and especially to the Dhunds.

All along the Kashmír road in the Murree Tahsil the great cart traffic has caused a multitude of small shops, *ekka* stands, camping grounds and sometimes bazars to spring up. These are nearly all on the land of zamíndárs. Sometimes the land has been sold, but more generally the zamíndárs retain the ownership and charge ground rents for the use of the sites. These ground rents often amount to considerable sums, but of course the distribution among the individual owners is in accordance with their shares in the roadside land, and bears no relation to the share of land revenue paid by them. In some cases the land is village common land, and then it is not difficult to take account of the rents in assessment. Besides the bazars and shops on the cart road, there are a few also on other roads in the hill tracts in both Murree and Kahúta, and it will always be found that the zamíndár has had the sense to retain most of the profit to himself. The Dhunds are not above making large gains by letting out shop sites for purposes more profitable than respectable. Indeed so disreputable are some of these places that it becomes interesting to notice how the

Rents. Wages and Prices.

Material condition of the people.

Dhunds, who pretend to so high a descent, can take so low a view of the obligations of their own personal honour. There are several villages in which the income from shop sites greatly exceeds the land revenue—there is one village in which the income exceeds the present land revenue demand more than one hundred times. In the Dewal illaqa the income from shop sites in the whole illaqa probably exceeds the whole Land Revenue paid by the illaqa.

The Sattis and Dhanials of Murree and the Sattis, Jaskams and Janjuas of Kahúta look to military service as their profession and think little of their other sources of income. A few Sattis trade across the Jhelum river with Punch, but small profit is made. Where military service is common there is often great prosperity, but the family which has no son or brother to seek service in the army is badly off indeed. In the Pahár Circle of Kahúta the struggle for existence is harder than anywhere else in the district.

But generally the Ráwalpindi zamíndár is on the whole well-off. The average zamíndár spends little on dress, house and household furniture but he has good credit, is not burdened by debt and is in comfortable circumstances.

Section C.—Forests.

The Hill Forests.

The hill forests have already been referred to and a description of their forest growth given.

Reserved and Protected Forests.

They were demarcated at last Settlement by Mr. F. A. Robertson. Twenty-three Reserved Forests and 30 Protected Forests were formed in Murree Tahsil and 24 Reserved and 26 Protected Forests in Kahúta Tahsil. The area of Reserved Forests is 97,246 acres (30,787 acres in Murree Tahsil and 36,245 acres in Kahúta) and of Protected Forests, 48,665 acres (27,589 in Murree and 21,076 in Kahúta). These forests are under the management of the Forest Department. The principal sources of revenue are the sale of timber, fuel, charcoal and grass. The chief timber fellings are made in the higher forests in which *chir* is the dominating species. The method of treatment adopted is the selection method, modified so as to approach the group system. But in the blue pine and oak forest the method of improvement fellings is followed. The forests at low elevations consisting of brushwood and hardwood trees are exploited for fuel. To allow these forests to recover from the results of ill treatment no fellings of green wood are made and drywood is extracted only at fixed intervals. Formerly charcoal used to be burned by the Forest Department, but the practice now is to sell standing trees to the contractors and to leave them to make their own arrangements for burning the charcoal in the forest and for its removal. Timber trees are always sold standing. The sale of grass yields a very

CHAP. II,C. Forests. Reserved and Protected Forests.

large revenue. It also is sold standing. No resin is extracted. Minor forest produce includes the burning of a small quantity of lime, and a little grazing. The principal markets are Ráwalpindi, Murree and the larger villages in the plains, such as Gujar Khan and Kahúta. Ráwalpindi takes every class of forest produce in enormous quantities. The demand in Murree for timber is small, as house-builders generally import *deodar*, blue pine and silver fir from Kashmír and Hazara, but the consumption of fuel and charcoal is very great. The chief consumers are the residents of the station, the Commissariat Department and the Murree Brewery. By far the greater part of the produce is extracted by road. Produce of the Murree Forests is brought on pack animals along the numerous bridle roads and village paths to the Ráwalpindi-Kashmír cart road, and is then loaded on carts. From the Kahúta Forests produce is carried direct to Ráwalpindi or other markets by pack animals, camels, bullocks and donkeys. A small quantity of timber is floated down the Jhelum and either landed and sold in the Gujar Khan Tahsil or sent on to Jhelum.

The chief methods of improvement are sowings and plantings from various nurseries, the opening out of new roads and paths, and construction of new bungalows and buildings.

Fire protection is at once one of the important questions and the most difficult problem a Forest Officer has to deal with. There is not a single acre in these forests which has not been burned over at least once. In one year the area burnt over was 131,000 acres. The great majority of fires are the result of direct incendiarism due either to the desire of right-holders to obtain a fresh crop of grass for their cattle, or to enmity between villagers or individuals, or to pure mischief. The damage done by these fires is enormous. Numbers of mature trees, middle-aged trees and poles are killed, and seedlings are killed off in millions.

The chief protective measures are clearance of fire lines, the establishment of heliographs on the highest hills during the fire season, and punitive closures. Heliographs, worked by parties of British soldiers, are established on Narar, Kotli, Patriáta and Murree ridges. Besides supplying immediate information to the Forest Officer on the outbreak of any fire they have an excellent moral effect on the people. But the most effective measure is to suspend the exercise of all rights in any portion of a forest where fire has been caused willfully or by gross negligence. It brings home to the people that it is their interest to see that no fire occurs in the areas in which they are interested. The adoption of this method has had a very good effect.

Besides these State Forests there is the Murree Municipal Forest including all the forest land round the sanitarium. This is much the finest forest in the district and contains many fine forest species unknown in the adjoining State Forest. In altitude

and quality of soil it has the advantage over all other forests. It is worked by the Murree Municipal Committee solely for supply of timber and fuel to residents within Municipal limits.

CHAP. II,C.

Forests.

Guzaras.

All the village common lands in the Murree Tahsil and in the Pahár and Kahru Circles of the Kahúta Tahsil have been declared unclassed State Forests, the land belonging to the people and the trees to Government. The rules regulating the administration of these "guzaras" (which are under the control of the Deputy Commissioner) have been frequently altered. In their present form they forbid the cutting of all trees, whether planted or of spontaneous growth, whether privately owned or on common lands, and their operation extends even to the Kallar Kahúta Circle. This matter has been made the subject of reference to Government. It is proposed to allow the cutting of one or two specified kinds of trees without the necessity for asking permission and in order to supply the more urgent necessities of the zamíndárs.

Supply of local needs.

Local necessities are supplied from "guzaras" and Protected Forests. There are very few villages which have not rights in some adjacent Protected Forest and many have rights in more forests than one. These rights in Protected Forests extend to grazing of all animals belonging to right-holders with the exception of browsers (goats, sheep and camels), grass-cutting, collection of dry fuel, and the supply of timber for house-building, agricultural and certain other uses. The head of cattle to which rights of grazing extend is limited to double the number found to be in possession of right-holders at Forest Settlement, and the number of trees granted for house building is restricted to three trees every five years.

In addition to these rights in Protected Forests there are very extensive rights in Reserved Forests. At least one quarter of the area of each reserve must always be open, the grazing of all animals except browsers being permitted on payment of fees. In 24 Reserved Forests grass-cutting rights have been recorded over certain specified areas, in one Reserved Forest lopping of oaks and dhaman (grewia oppositofolia) for fodder is allowed, and in portions of two forests browsing is permitted. Free grants of timber for house-building and agricultural uses are given from four Reserved Forests in Kahúta.

By a curious anomaly rights in guzaras are more restricted than in Protected Forests. Lopping of oaks (*chir*, *barungi* and *barin*) and "dhaman" for fodder is allowed. Brushwood and branches interfering with cultivation may be removed and dry wood for fuel is free. There is no restriction on grazing and browsing. But timber can be cut only with the permission of the Deputy Commissioner. A special Naib Tahsíldár is engaged to mark and grant trees to right-holders and to hammermark the scantlings into which the trees have been converted before they are removed by the applicant.

CHAP. II, C.
Forests.
Relations of Forest Department with the people.

Forest conservancy is a matter of great difficulty in these hills not only from the attitude of the people towards it, but from the nature of the forests themselves. Your true hillman works havoc from the mere love of chopping. All authority is irksome to him. The process of settling down to purely agricultural pursuits is not yet complete. Pastoral instincts are still strong, and in spite of contraction in the area open to browsers no decrease in the numbers of browsers is yet apparent. Many of the forests consist of small detached blocks, often with intricate boundaries, and surrounded by village lands. The Protected Forests are riddled with "chaks," patches of cultivation encircled by, but excluded from, the forest area and not seldom inhabited. Forest subordinates are ill paid, of a poor class, and like many native subordinates inordinately corrupt. Their beats are much too large for efficient protection, and the authority they wield is intoxicating to men of so poor a class. The interests of agriculture and sylviculture are always to some degree antagonistic, and amity between truculent hillmen and forest subordinates is never to be expected. Friction is considerable and constant. Forest rules cause almost daily annoyance and trouble and constant expense. The hillmen can never get away from the rules, and the very tribes which pride themselves most on their independence and freedom from control, find themselves never free from the interference of Government officials.

Plains Forests.

Of the thirteen Plains Forests twelve are in Ráwalpindi Tahsil. The Bagham reserve, which is situate in the north-east of Gujar Khan, is the only reserve, and indeed the only piece of forest land in the tahsil. It has considerable capabilities, but its value is destroyed by the unrestrained grazing rights, far in excess of their requirements, which have been conceded to the surrounding villages, and as it is impossible to close any portion of it, it is, from a forest point of view, practically useless as a reserve. It is under the management of the Forest Department. Of the twelve forests in the Ráwalpindi Tahsil the principal is the Margalla Reserve (17,048 acres). It covers the south side of the range where the Hazara hills end abruptly and hang over the flat Ráwalpindi plain. The upper boundary runs roughly along the top of the Margalla ridge. The lower boundary is the line between hill and plain. The highest point is 5,200 feet. From 3,500 feet upwards chir and *kangar* (pistachio) grow. Lower down the forest growth is the same as in the plains *rakhs—phulahi, khair* and olive with brushwood of Sanattha, Garanda, and Bhekar. Peculiar to the Margalla Reserve are *mallotus phillippinensis*, patches of bamboos, and a little badly grown box-wood, called "shamshad" (*buxus sempervirens*). Grazing is excellent, and is leased by the Military Grass Farm. 13,261 acres also on the Margalla range and similar in portion and character to the Margalla forest form a reserve under the Military Department and are controlled by the Military Grass Farm. This forest supplies the fodder required by the mounted troops in Ráwalpindi.

CHAP. II, C.

Forests.

Plains Forests.

Tamair (3,373 acres), Maira (1,257 acres) and Bannigalla (641 acres), Reserved Forests under the management of the Forest Department, are the last spurs of the main Murree ranges jutting out into the Ráwalpindi plain. These are completely overburdened with rights and are of little value.

The remaining rakhs contain no timber, and some of them nothing but grass. Lohi Bhir (1,050 acres) and Takht Pari (2,210 acres) are unclassed forests under the Forest Department. Grazing leases are sold annually by auction. Topi (547 acres), Adiála (1,330 acres) and Banda (251 acres) are unclassed forests under civil administration. The first is the Ráwalpindi Park, is under cantonment management, and is strictly preserved. The second is leased to the Military Grass Farm. The unclassed forest area, Pind Ranja (252 acres), is held by a lessee for cultivation.

Section D.—Mines and Mineral Resources.

Petroleum.

The district is very poor in minerals. Petroleum is found in small quantities at Ratta Hotar, 13 miles from Ráwalpindi.

Gypsums.

Gypsum is found in considerable quantities along the southern part of the hills, from Murree, westwards: but it is not utilized either as a manure or as a cement by the natives.

Lignite.

Lignite is occasionally met with in very small quantities in some parts of the Murree hills, but is not worked. There is in fact no systematic working of minerals in the district.

Gold.

Gold is found in small quantities in the beds of various streams, tributaries of the Jhelum and the Indus, throughout the district, but it hardly pays to extract it from the sand which contains it. In Ráwalpindi Tahsil the persons principally employed in this occupation are Hindus from the western bank of the Jhelum, who have settled in some of the villages on the banks of the Soan. The work is hard, the outturn precarious, and the average profits are small.

The mode of extraction is simple: 10 or 12 lbs. weight of the sand is placed in a shallow basin-shaped tray, called a "Parátra" on a "Dhrún" and this is repeatedly washed, the water and the light sand being repeatedly thrown off until a dark deposit with minute shining specks of gold in it is left. Mercury is then added to this which unites with the gold grains to form a small nodule. The mercury is then detached by the heat of a fire, and a small globe of gold remains. The "Dhrúns" are generally owned by one person, and the gold-washing is done for him by paid labourers, who get a share of the profits which varies from Re. 1 per diem down to nothing at all when no gold is obtained. The average does not exceed Rs. 6 or Rs. 7 a month, and gold-washing is now

CHAP. II, D.

Mines and Minerals Resources.

less common than it once was, as more permanent employment and certain returns are to be got in many forms of ordinary daily labour.

Sandstone.

Sandstone and lime alone are extracted from the hills, and both are worked only when required by building contractors or the Public Works Department of Government. There is no systematic exploitation. Consequently there is no constant demand for labour, and no class who make their living by mining. When labour is required it is obtained in the usual way from immigrants or the casually unemployed.

Section E.—Arts and Manufactures.

Of the total population only 6 per cent. is urban. The rural population is essentially agricultural or dependent upon the results of agriculture. There is no large body of the people engaged in hand industries. The ordinary non-agricultural inhabitants of the district are Julaha (weaver), Teli (oilman), Kashmíri (usually spinners), Mochis (leather workers), Lohár (blacksmith), Tarkhán (carpenter), Mirási (musician), Musalli (sweeper), Sunár (goldsmith), with Brahmans, Khatris, Bhabrás and a few others. These form only a small proportion of the total population, and are most of them more or less dependent on the outturn from agricultural operations. Only a very small proportion of them is engaged on arts and manufactures of a really commercial nature. None of them are engaged on manufactures of much importance and none of their productions is known beyond the limits of the district. There is no manufacture of any kind peculiar to the district. Cotton is grown only for the cultivator's own personal use and cotton-weaving is a purely village industry. Country cloth of various kinds is made throughout the district. Blankets are manufactured in Kahúta Tahsil, and "chhats" and "borís" or packing bags are also made. Their manufacture is an art appropriated to barbers. Kashmíris everywhere take sooner or later to weaving. They practise a little silk-weaving, not without profit, but the outturn is inconsiderable. Phulkárís are made in many places, the best coming from Ráwalpindi. Soap of a common country kind is made at Ráwalpindi. A large number of lacquered legs for bedsteads (chárpáis) are made by the Tarkháns of Kuri-Dulál, Ráwalpindi Tahsil, and Salgráon in Kahúta Tahsil. These fetch from annas 10 to Rs. 10 for the set of four. They are made of shísham, phulái or khair wood. Pihrás, or low chairs, and spinning wheels are also made by the same class in considerable quantities. The chairs cost from Re. 1 to Rs. 8, the spinning wheels from Re. 1 to Rs. 6. Other wooden articles are also constructed for sale in many of the villages, especially in Kahúta Tahsil, where wood is plentiful. Richly carved chaukáts for doors and windows are occasionally made, and many of the houses, even of very ordi-

Village industries.

CHAP. II, E.

Arts and Manufactures.

Village industries.

nary zamíndars in the hills, have elaborately carved doors. The carving, the work of the village tarkhán, is of a purely traditional nature, and although sometimes very laborious of no particular excellence. The designs are few and simple. The work has no celebrity.

Saddles are made in Ráwalpindi and in Bishendot, in Kahúta Tahsil, and cost from Rs. 5 to Rs. 20. The jewellery manufactured and worn in the district has been described at page 97. It is neither peculiar nor of special excellence.

Factories.

Table 28 of the Statistical Volume gives a list of all the factories in the district, the nature of the industry, and particulars as to the operatives employed. There is, with the exception of the Murree Brewery, no industrial concern in the district outside Ráwalpindi itself, and of the factories which do exist all but two are Government or Municipal concerns. The iron foundry of Messrs. N. D. Harri Ram and Brothers is a large private concern whose output is almost all despatched to Kashmír. At present they are doing a great deal of work for the Kashmír Electrical Scheme. A larger concern also privately owned is the Tent Factory of R. B. Buta Singh. It is merely a development of R. B. Buta Singh's business as a contractor, and supplies only the various Government Departments.

By far the largest factory is the Railway workshops, where more labour is employed than in all the other factories together.

The only private European industry in the district is the Murree Brewery Company, of which the following account has been supplied by Mr. Brown, General Manager :—

European industry in this district is represented by the Murree Brewery Co., Limited, with Breweries at Ghora Galli and Ráwalpindi and a branch brewery at Quetta.

The Company was founded in 1860 with a subscribed capital of Rs. 2,00,000. This has been increased from time to time and now stands at Rs. 18,00,000. The present actual capital employed is about thirty-six lakhs.

The Ghora Galli Brewery is situated on the Road to Murree, 33 miles from Ráwalpindi. Brewing was commenced in 1861, but very little progress was made until 1870, when Government first granted a formal contract to the Company for the supply of beer to the British troops cantoned in the vicinity. The outturn is now about 16,000 hogsheads (24,000 barrels) annually. This brewery ordinarily employs 4 Europeans, 16 office staff and Printing Press, and 260 native workmen.

The Ráwalpindi Brewery is situated at Topi about one mile from the Ráwalpindi civil lines. Brewing was commenced in the spring of 1889 and the outturn is about 6,000 hogsheads (9,000

CHAP. II, E.

Arts and Manufactures.

barrels) annually. This brewery ordinarily employs 2 Europeans, 6 office staff and 180 native workmen.

Distillery at Ráwalpindi.

At the request of the Punjab Government a distillery was built and equipped and since the summer of 1899 the manufacture of Malt Whisky, plain country spirit and coloured rum has been carried on. The large demand for plain country spirit necessitated an increase to the plant and a large continuous still was imported from Scotland, but the Punjab Government has not yet consented to its erection, so the plant in work at the present time is only 3 Pot stills and the maximum outturn is about 100,000 gallons of proof spirit. The *goor* for the distillery is brought from Lyallpur, Siálkot and Gurdáspur Districts, in the Punjab, and from certain districts in Bengal. *Goor* is not obtainable in the Ráwalpindi District. The distillery gives employment to 1 Supervisor, 1 Peon, 1 European Distillery Manager and 41 native workmen.

The Quetta Brewery is situated at Kerani at the foot of the western hills, 3 miles from the city of Quetta. Brewing was commenced in February 1886 and the outturn is now about 4,000 hogsheads (6,000 barrels) annually. This brewery ordinarily employs 2 Europeans, 4 office staff and 80 native workmen.

The Malt for Ghora Galli and Ráwalpindi Breweries is made from barley grown in the Hazára and Rewári Districts and for Quetta Brewery from barley grown in the Peshin valley. Hops are imported from England, Bavaria, California and France, and practically all that are available are purchased from the Kashmír State where an experimental hop garden was started by this Company.

The Head Office of this Company is at Ghora Galli from April to October and at Ráwalpindi from November to March, in each year.

The Company is under the management of Mr. James Brown.

Section F.—Commerce and Trade.

South-east.

The trade of Gujar Khan Tahsil and the south-east portion of Ráwalpindi Tahsil concentrates on Gujar Khan, that of the rest of Ráwalpindi Tahsil on Ráwalpindi City, while Murree Tahsil trade all flows to Murree. The trade of Kahúta is more diffused from the nature of the trade. These four classes are little connected and can conveniently be described separately.

Gujar Khan Tahsil.

In Gujar Khan Tahsil the entire trade is as usual in the hands of Hindús, and mostly of Khattrís. With the exception of Gujar Khan itself, the principal centres are Bewal, Guliána, Sukho, Daulatala and Sayyad. The trade in all these places is of an ordinary money-lending character between trader and zamíndár,

CHAP. II, F.

Commerce and Trade.

Gujar Khan Tahsil.

which of itself necessitates some grain dealing, but is of a purely local character. The trading centre of the tahsil is Gujar Khan itself. Here there is an active grain mart and a good deal of import and export trade is carried on. Most of the imports and exports of the tahsil pass through Gujar Khan, and here only are found merchants who have dealings with the outside world. Much of the trade is direct with zamíndárs, who bring their grain into the markets on their own donkeys or bullocks and conduct their own sale or barter.

The Gujar Khan market was once well-known in the Northern Punjab. Wheat and other grains were exported to Karáchi and England, while Ralli Brothers and all the great firms had their agencies here. Gujar Khan wheat is still as good or better than any in the Punjab, but the centre of trade has moved away from Gujar Khan. The opening of the Mari-Attock Railway has tapped some part of the country which sent its wheat to Gujar Khan, the Chenáb Colony has shifted the centre of the Punjab wheat trade nearer the sea. Lyallpur wheat for export has an advantage of 3 annas per maund in freight over Gujar Khan wheat and the greater advantage of more regular harvests. The Gujar Khan mart is still active, but it is no longer a great centre. Much of the Fatehjang and Chakwál grain goes elsewhere, and though nearly all the grain of the tahsil passes through Gujar Khan, yet exports are now to the north to Ráwalpindi and Pesháwar. The Karáchi trade is now small and all the agencies have gone. Successive bad harvests have contributed to this decay, but the trade which has gone will never return.

There was once a trade in salt with Kashmír, but that also has dwindled away, ruined by preferential tariff in Kashmír. The local salt trade is still considerable. The principal exports are wheat and *múng*, and imports sugar, *gur*, rice and cotton.

The marked decadence of Gujar Khan as a market does not affect materially, if at all, the prosperity of the tahsil as a whole as there is still an active trade in all goods offered for sale, and all the miscellaneous requirements of the zamíndár are obtainable and are obtained in Gujar Khan Bazár, which is still the trade centre of the tahsil.

Ráwalpindi Tahsil.

The needs of Ráwalpindi City and Cantonment are far more than the Ráwalpindi Tahsil, or indeed the Ráwalpindi District, can supply. The Ráwalpindi market is large and important, but it is a local market, and not a centre of commerce. Exports are small and imports very large. Every kind of agricultural produce is in demand in Ráwalpindi—wood, fodder, milk, eggs, cattle, sheep and all the multifarious requirements of a large city and a great cantonment are brought in daily by zamíndárs and find a ready sale. There are no factories or manufactures in the city other than by firms supplying the troops, and indeed the city is wholly

CHAP. II, F. — Commerce and Trade.

dependent on the Cantonment and Arsenal. The Kashmír trade passes through Ráwalpindi and is carried on by Ráwalpindi carts owned by Ráwalpindi zamíndárs.

Rawalpindi Tahsil.

Besides Ráwalpindi itself there are no large markets in Ráwalpindi Tahsil. In the extreme north, Dheri Shahan does some trade in grain with parts of Haripur and Attock Tahsils. Golra and Saidpur have dealings with the tribes of the Haripur hills, while Kuri is the bazaar of the north-east of the tahsil. All these petty markets are but of local importance and if they have any external trade, it is but with Ráwalpindi.

South of the Soan River conditions are somewhat different. The markets are larger and the dependence on Rawalpindi is much less. Sagri, adjoining Mankiala Station, is the last of a chain of trading posts leading down from Jammu and Punch through the Kahúta Tahsil to the railway at Mankiala. *Ghi* is the principal article of hill commerce, but wool, hair and skins also come down. Salt is the principal article of return trade. Sagri deals with both Ráwalpindi and Gujar Khan. Takhtpari, Banda and Basali are all well-known markets. They carry on no external trade, buying the produce and supplying the needs of the villages which surround them. In these three villages there is an active trade in mules which are bred by Hindus, formerly for the Jammu trade but now largely for Government Transport. True to their traditions and history as part of the Pothwar, these village markets deal with Gujar Khan and not with Ráwalpindi. Indeed Gujar Khan is nearer and more accessible than Ráwalpindi.

The railway stations of the tahsil doing a goods traffic are six in number, and each has its separate characteristics. The traffic passing through Ráwalpindi Station is very large, but is no indication of agricultural conditions. At Chak Lala and Golra Stations the goods traffic is merely nominal. The former is close to Ráwalpindi Cutcherry and the latter is the junction for the Kohat line. Mankiala is an important station. Sagri and Takhtpari are near and the trade of the south part of the Kahúta Tahsil passes through this channel. The goods traffic at Mankiala is larger than at any other of the subordinate railway stations of the tahsil. Sihala is the station for Kahúta and all the Kahúta trade pours down this road. There is no market at the station, but the exports and imports are large, and the south part of the Kahúta Tahsil gets all its imported supplies through this station, and deals with Rawalpindi. The Sarai Kala Station, which adjoins the Dheri Shahan bazaar, is the outlet of the Haripur Tahsil. Dealings are either direct, or through the medium of Dheri Shahan, with Ráwalpindi. Generally throughout the tahsil, markets are good and carriage is cheap. North of the Soan, within reach of Rawalpindi and the Grand Trunk Road, markets are extraordinarily good, and every kind of agricultural produce can be sold at a high price.

CHAP. II, F.

Commerce and Trade.

Kahúta Tahsil.

The principal trading places in the Kahúta Tahsil are Kallar, Kahúta and Nàra, of which Kallar is the largest. These are only large villages with small bazaars of Hindu traders. All these places carry on trade with the Jammu State across the river. *Ghi*, wool, and hides and other products of a pastoral population are brought across on mules and either sold or traded away for salt, sugar, tobacco and cotton stuffs. The District generally drives little profit from the trade, as the imports are of a class which are produced in sufficient quantities locally, and the exports are all imported into the tahsil from other places. Even the carrying trade is only to a small extent in the hands of local zamíndárs. The local trade is only of a petty village kind. Grain is carried into market and the various necessities of a zamíndár's life are brought in exchange. None of the three principal markets has any direct dealings for imports or exports with any large producing mart, still less with Karachi or any other port. Traders as apart from money-lenders do not exist. Nára and Kallar deal with agents in Gujar Khan, and Kahúta deals in the main with Ráwalpindi. A little fruit finds its way down from the hills to the Kahúta markets, but there is little fruit grown in the Kahuta Tahsil. On the extreme north of the Kahúta Tahsil, on the Murree border, a small market has sprung up of recent year. It is called Kahúta; though there is no estate of that name. The bazaar drives a purely hill-trade. Fruit and pastoral produce are carried there, while grain, salt, &c., brought up from Kahúta, are sold in exchange.

Murree Tahsil.

In the Murree Tahsil, Murree is the only market. All roads lead to Murree and all zamíndárs carry their produce in for sale. The food-grains produced in the hills are little sold, as few households produce more than they can eat, and the maize and rice grown in the hills are not much in demand for consumption in the purely artificial and foreign bazaar of Murree. In this tahsil there is little money-lending and few money-lenders. Zamíndárs sell in one market and buy in another. Into the Murree market come fodder, potatoes and other vegetables, wood, sheep, goats and cattle, milk, eggs, fowls and all the hill fruits, walnuts, pears, peaches, grapes and many others. When prices are falling and agricultural operations slack, the enterprising zamíndár does not hesitate to load up his bullocks and take his fruit and potatoes down to the bigger market of Ráwalpindi. he whole of the Kashmir road with its seething mass of cart and horse traffic is one huge market for fodder, grain and miscellaneous supplies. In this as in everything else which makes for prosperity, the west half of the Murree Tahsil is much more favourably situated than the east.

Among the imports are piece-goods from Calcutta and Amritsar, rice from neighbouring districts, Siálkot, Wazírabad, Pesháwar, Kashmír and Sawat; rice being little grown, and that of inferior quality in this district. *Ghi* is brought in from Punch, Kashmír and Hazára and other districts of the Punjab. Salt comes from

CHAP. II, F. — Commerce and Trade. Murree Tahsil.

Jhelum and Kálabágh ; refined sugar from Bombay, Shahjahánpur, Hoshiárpur and Jullundur ; *goor* from Siálkot, Peshàwar, Jullundur and Meerut ; fruit and vegetables from Lahore and Gujránwála ; fruits from Kashmír, Kábul and Pesháwar ; tea from Kángra and the sea-ports ; country cloths from Amritsar and Ludhiána ; raw cotton and indigo from Mooltan ; hardware from Amritsar, Delhi and Gujránwála ; silk from Amritsar, Jullundur, and Pesháwar ; leather from Kashmír, Pesháwar, and Gujrát ; thick cloths, *pattús*, &c , from Kashmír ; timber, chiefly deodár, from Kashmír. Fire-wood is also brought in from Khairabad and Khushalgarh. The Kashmír trade is registered at Murree and at Lachman Ferry on the Jhelum river.

The trade of the Ráwalpindi District with Kashmír, however, does not as a rule go beyond Srínagar, Yárkand and Ladákh. Traders seem to prefer the Kulu route, which is probably shorter than the route through the Kashmír valley. *Ghi*, timber, *charas*, dyes, fruits, drugs and medicines and rice deserve mention among the imports ; and cotton piece-goods and Lahori salt, are noticeable among the exports.

Section G.—Means of Communications.

Roads and Railways.

The main line of the North-Western Railway and the Grand Trunk Road parallel to the railway, run through the District from north to south and from the backbone of the system of communications. Both cut through Ráwalpindi and Gujar Khan alone and are connected with Kahúta and Murree Tahsils.

The communications of the Kahúta Tahsil are the worst in the Ráwalpindi District. There is no metalled road in the tahsil and no good unmetalled road. Kallar itself is connected by fair roads with the Railway stations of Mankiala and Mandra, but no carts ply on the roads. A fairly good road runs east to the Jhelum river and another runs up to Kahúta. Kahúta itself lies on a rough unmetalled road extending from Sihala Railway Station to Lachman Pattan Ferry and the Punch State. It is proposed to make this road passable for wheeled traffic and to bridge the Jhelum river, but much yet remains to be done. A good hill road leads up from Kahúta to Kotli in the Murree Tahsil. There are roads leading out from Kahúta to various places in the Kahru Circle, but all are bad. None of these roads are passable to wheel traffic and some of them are passable only for laden mules. The hill part of Kahúta is particularly unfortunate. Except the road from Kahúta to Kotli, there are no roads whatever. Incidentally it may be mentioned that the first Primary School was started a few months ago and there is no Post Office in the whole assessment circle. The present Forest Officer is endeavouring to drive roads through these trackless hills, and it is possible that some day it

CHAP. II, G.
Means of Communication.
Roads and Railways.

may be feasible to reach the hill villages otherwise than on foot. Along the Jhelum river communications are almost as bad as in the hills. Generally it may be said that the roads are as bad as roads can be, and there are perhaps no worse roads in the Punjab. The Murree Tahsil is much better served with roads than is Kahúta. The road from Kahúta to Kotli is continued to the end of the Kotli spur and can everywhere be traversed by laden animals, though not by camels. A good hill road runs from Kotli to Murree connecting with a road from Karor. The Patriata spur is fairly well served with paths, which are kept in some order and are passable. The Murree spur is traversed everywhere by excellent roads. The Kashmir cart road runs from north to south throughout its entire length. On the east side of the spur a good hill road maintained by the Public Works Department runs parallel to the cart road with which it connects at either end. The old Káshmir riding road from Murree traverses the spur for 12 miles The military road from Murree to Abbottabad crosses the west slope. On the Murree spur there is no village except to the extreme south, which is not easily accessible from a good road. In short, the communications on the Murree spur are extremely good.

The systems of communications in Gujar Khan and Ráwalpindi Tahsils are quite distinct. Both converge generally on the Grand Trunk Road and railway, but for Gujar Khan the centres are Gujar Khan and Mandra and for Rawalpindi, the Cantonment.

Except the Grand Trunk Road there is no metalled road in Gujar Khan Tahsil. The principal unmetalled road is the road from Mandra Railway Station through Jatli to Chakwál. The road is a good one and the Chakwál mails are carried along it by tonga. Though the road is fit for light wheeled traffic, there is, in fact, no wheeled traffic on the road, nor on any of the unmetalled roads in the Tahsil. Indeed, there are no carts in the Tahsil except a few which ply on the Grand Trunk Road. In addition to the above there are several good unmetalled roads in the Tahsil. From Gujar Khan a road runs to Sukho and thence into the Fatehjang and Ráwalpindi Tahsils and to Kazian, and thence to the Kahúta Tahsil and to the Jhelum ferries. From Mandra Station, besides the Chakwál road, fair roads run to Kallar and to Kahúta in the Kahúta Tahsil. All these roads, except the Chakwál road, are intersected by ravines and are unfit for wheeled traffic of any kind. Communications between individual villages are sometimes extremely difficult and there are some villages which are not accessible except on foot. All the local trade is carried on pack animals - donkeys, bullocks and camels. The Grand Trunk Road, and to a still greater extent, the railway are not used for local trade, but only for imports and exports.

CHAP. II.G.
Means of Communication.
Roads and Railways.

The only railway in the district besides the main line of the North-Western Railway is the Kohát Branch which runs through a part of the Tahsil; but there is no railway station in the district, and it is of no use for local traffic.

In addition to the Grand Trunk Road the Murree Kashmír Road runs for 17 miles in Ráwalpindi Tahsil in a direction north-east of Ráwalpindi. The roads from Ráwalpindi to Saidpur, 7 miles north, and to Fatehjang, are partially metalled and are traversed by cart. In the environs of Ráwalpindi there are many miles of metalled road, built by the Military Department to connect the various forts of the Ráwalpindi defence works. Most of these roads are quite useless for the purposes of ordinary traffic. The unmetalled roads are neither numerous nor good. A good road runs from Sarai Kala to Haripur in the Hazára District. This is everywhere traversed by carts. The principal unmetalled roads are the road from Ráwalpindi to Chiráh, and thence on to the Murree Tahsil; to Gola on the hill road to Haripur, and to Kuri in this tahsil. A good road runs from Sang Jani to Fatehjang; one from Sihala to Kahúta, and another from Rawat to Kahúta. The Banda-Basali Road is the main channel of trade in the south of the Tahsil. Bullock carts ply on all these roads, often, however, with great difficulty. Pack animals are still the principal means of carriage, but bullock carts are on every road. The Kashmír carting trade, the cantonment trade, and the military traffic on the Grand Trunk Road are all in the hands of zamíndars. The carts are primarily used for hire and only secondary for agricultural purposes.

Apart from the main roads, metalled or unmetalled, communications between villages are generally very bad. Near Ráwalpindi, and to the north and west, the country is comparatively level and trade can be carried on easily. Among the hills, however, and still more among the gorges and cliffs of the Soan and Ling rivers, communications are extremely bad. The country which stretches along the left bank of the Soan from Sihala to the Fatehjang border is not easy to traverse even on foot. In the north of the Tahsil under the hills, along the Soan and again in the extreme south near the Wadala torrent, there are many villages which can only be reached on foot. All lines of communication lead to Ráwalpindi or to the Grand Trunk Road. South of the Soan the streams of traffic converge near Rawat camping ground, whence they pour across the Soan bridge towards Ráwalpindi. Except the Grand Trunk Road, no road crosses the Soan and all the traffic which comes towards Ráwalpindi from the south must cross the bridge.

The metalled roads in charge of Provincial authorities are the Grand Trunk Road, the Ráwalpindi-Murree-Kashmír Road, the Murree-Abbottabad Road and the Murree Station roads. The

CHAP. II,G. — Means of Communication. Camping grounds.

same authorities control also the Kohála bridle road from Murree and the road from 17th mile to Bagla, both unmetalled road.

The remainder are in charge of the District authorities, except the forest roads in Murree and Kahúta which have been constructed and are kept up by the Forest Department. The chief camping-grounds and halting places are given below :—

Route	Halting places.	Distance in miles.	REMARKS.
RÁWALPINDI TO MURREE ROAD.	Bárakao	13½	Encamping ground, dák bungalow.
	Tret	12⅞	Encamping ground, dâk bungalow, *sarái.*
	Murree	13½	Hotels ; *sarái* and encamping ground at Sunnybank.
GRAND TRUNK ROAD.	Gujar Khan	15 (from Soháwa, Jhelum District.)	Encamping ground, *sarái,* District bungalow.
	Mandra	9	Encamping ground and *sarái.*
	Riwát	11	Encamping ground and *sarái.*
	Ráwalpindi	12	Encamping ground, *sarái,* dâk bungalow, and hotels.
	Sangjáni	14	*Sarái* and encamping ground.
	Sarái Kála	6	Encamping ground, D. P. W. bungalow ; unmetalled road towards Hazára runs from this place.
RÁWALPINDI TO KOHAT ROAD.	Naugázi	14	Encamping ground.
KASHMIR ROAD.	Murree	...	Camping ground—Hotels.
	Dewal	11	Encamping ground, *sarái,* and dâk bungalow.

There are in all 15 recognized camping grounds in the District :—

Seven in Tahsíl Ráwalpindi—at Ráwalpindi, Riwát, Sangjáni, Kála-ka-sarái, Usmán Khattar, on the road from Kála-ka-sarái to Hazára, and Naugázi.

One in Kahúta at the head-quarters of the Tahsíl.

Four in Tahsíl Murree—at Tret, Sunnybank, Dewál and Karor, on the road from Ráwalpindi to Murree, *viâ* Karor.

Three in Gujar Khan—Gujar Khan, Mandra and Játli on the road from Mandra to Chakwál.

Dâk Bungalows provided with servants and furniture are only to be found at Ráwalpindi, Bárakáo, Tret, Dewál.

The total mileage of metalled roads is 111 miles and of unmetalled 95 miles.

CHAP. II.G.
Means of Communication
Waterways.
Ferries.

There are no navigable canals or other waterways in the District. The streams which score the District are all more or less mountain torrents now in high flood, now almost dry. Many are a serious impediment to communications within the District.

The Jhelum, which forms the eastern boundary of the district for 72 miles, is not navigable throughout any part of that distance. The bed is rocky and the stream very rapid, and of very variable depth. Much timber is floated down the river in rafts and logs from the forests of Kashmír, but this is the only traffic on its waters. The only boats in use on its surface are those at the ferries, a list of which, with the distances between them, is given here. There is a good deal of traffic at some of these ferries between British and Kashmír territory.

Name of river.	Station.	Distance in miles.	REMARKS.
Jhelum	Khodar	16 miles from Murree.	Ferry only.
	Serri	3	Ditto.
	Malot	6	Ditto.
	Rám Patan	12	Ditto.
	Lachman	8	Ditto.
	Oan	12	Ditto.
	Sálgráon	12	Ditto.
	Dángalii	12	Ditto.
	Hill	6	Ditto.
	Baghám	1½	Ditto.

There are four ferry boats kept on the Jhelum in the Murree Tahsíl, four in the Kahúta Tahsil and five in the Gujar Khan Tahsíl.

In addition to these ferries, *sarnás* or inflated goat skins are kept at the following places, by aid of which natives of these tracts make a practice of crossing the river:—

Hill near Anwáli, Piota of Kuranna Kalán, Kullari, Barimár, Bariáka in Malot Sattián, all in Tahsíl Murree; and at Kanand, Karot, Sang (of Janhatal), Soa, Banáhil, and Balimah in Tahsíl Kahúta.

These ferries are managed by the District Board and are annually auctioned to contractors. They are more useful to the people of Punch than to the inhabitants of British territory, and are not used for agricultural purposes by the people of the District. The current is everywhere swift. The ferries are merely places where the current is slightly less dangerous than usual. Only small boats can ply, large boats cannot be concentrated. It would take a long time to cross any number of troops. In 1907 a very much overloaded ferryboat was carried away at the Lachman Ferry and 40 people were drowned.

Generally communications have vastly improved within the last twenty years and are still improving. The system of internal

CHAP. II.G.

Means of Communications.

Ferries

communications is good, though some parts of the District are much better served than others. All roads converge on one or two centres which are in easy reach of the rest of the Province. Practically every part of the District is easily accessible from the outside world. But the Ráwalpindi zamíndár still remains distinct from the zamíndár of the central Punjab. The outside world is to him chiefly a place whither he goes to find service, chiefly military. Improved communications have steadied prices a little and limited the bounds within which they can oscillate, but have left his language and religion unaltered. Jhelum is the boundary of his interest on the east. His metropolis is Ráwalpindi.

Post and Telegraph Offices.

A list of the Post and Telegraph Offices in the District is given in Table 31 of the statistical volume. Postal facilities are in the main good.

Section H.—Famine.

Causes of famine.

There is practically no canal irrigation in the District, which is totally dependent on rainfall. The price of grain directly depends on the rainfall. Immigration, increase of population, export and other causes have little effect on the cost of food staples, and the population is to such a large extent agricultural that the prices of grain have little effect on the food of the people. Scarcity of rain is the sole cause of famine. In general the rainfall is excellent and regular: if the winter rains are regular the District is comparatively independent of the results of the regular monsoon. Kahúta and Murree. Tahsils are practically completely secure from famine. In the plains if the winter rains fail, the people have only the *bajra* crop to fall back on. Even in the years of greatest scarcity the privation for human beings is seldom severe. The poorer people flock into Ráwalpindi and obtain employment there. Communications are good, and food-stuffs can readily be brought in from outside. The chief sufferers are the cattle. Fodder crops at once feel the effect of a failure in the monsoons, and stocks are much smaller than in the case of food-grains. Thus famine has little affected the population of the District. A few of the people migrate to Kashmír and the colonies may in the future provide a refuge for the famine-stricken, but in the past the poverty-stricken have taken shelter in Ráwalpindi City.

Early Famines.

The famine of 1860-61 hardly affected the District. In 1868-69 there was a great scarcity which did not here, as in other districts, amount to a famine. The deaths which occurred during the scarcity of 1877-78 were mostly due to the immigration of worn-out and emaciated fugitives from Kashmír territory. There was some distress on that occasion, but little actual famine. Scarcity has within recent years been serious only in 1896-97 and in 1898-99.

CHAP II.H.
Famine.
The famine of 1896-97.

In 1896 the monsoon failed. The Kharif crop was very poor, and the Rabi crop also failed. Wheat fell to 8 seers 2 chittanks per Rupee in Ráwalpindi in the month of November, and to 7 seers 12 chittanks in Kahúta in December. The crops dried up and only poor fodder crops were available in the lowlands. The people flocked from every quarter to Ráwalpindi City in search of a livelihood, and the population was little affected. The cattle suffered severely. Test-works were opened in October and remained open for six months. But workers were never plentiful. In Fatehjang Tahsil, which was then included in the District, and in which alone test-works remained up for some time, the average number of workers in January 1897 was only 17. Up to March 1897 there were no famine works in operation in the District as Tahsíldárs had reported that people were either engaged in looking after their own crops or working for others at rates better than those obtainable on famine works. In February the numbers on the test-works increased, and in March the Deputy Commissioner started gang piece-work in the Ráwalpindi and Gujar Khan Tahsíls in connection with a number of approved tanks under selected Inámdárs. The rates were Rs. 2-8-0 per 100 cubic feet for digging and carrying. These works were not largely resorted to, and had to be closed. By the months of May and June the existence of real famine was not felt, and there was no acute distress in the country except as regards cattle. To meet the last mentioned distress the Punjab Government assigned from the Punjab Charitable Fund Rs. 85,000 to this District, which then comprised seven Tahsils. Rs. 40,000 were distributed in July 1897 in proportion to the wants of each Tahsil. Payments varying from Rs. 20 to Rs. 40 were made to those cultivators who had lost their plough-cattle to enable them to purchase fresh stock. Grain compensation was also allowed to all Government servants whose pay did not exceed Rs. 16 per mensem or in the case of men required to keep a horse or camel, Rs. 25.

The famine of 1899-1900.

In 1899 the rains again failed. The scarcity was not nearly so great as in 1896. The price of wheat in Ráwalpindi fell to 11 seers per Rupee, and in February 1900 was slightly below that. But prices never reached the low level of 1896. Meetings were convened by the Deputy Commissioner to consider what relief-works were required. The first meeting was held on 8th October 1899. It was then considered unnecessary to start relief-works for a month. In November the Deputy Commissioner started relief-works in Ráwalpindi and Gujar Khan Tahsils, offering the sanctioned daily relief-work rates of two annas to each man, one anna six pies to each woman, and one anna three pies to each child between seven and twelve years of age. But no one was willing to work at these rates. Test-works had been started at Sohawa for the Bagham people. On the 9th February 1900 the Deputy Commissioner reported that it had not been found necessary to start famine relief-works in the District. Thus the famine passed over without the

CHAP. II. H. Famine. The Famine of 1899-1900.

people themselves requiring to be fed by Government. But village pastures, including *rakhs*, had become exhausted. Herds of cattle had gone, especially from Kahúta Tahsil, to Kashmír territory. It was necessary to make some provision. Accordingly Government forests and *rakhs* were thrown open to grazing at fees reduced to half the usual rates. Permits were issued by the Forest Rangers to remain in force until 30th June 1900, irrespective of the date of issue. All the reserved forests, which had not been leased to contractors for grass-cutting or grazing, were thrown open with certain precautionary rules. In addition the Deputy Commissioner had prepared himself to obtain a supply of grass from Bombay Presidency. Government had even sanctioned blankets and rice straw for relief workers, and was prepared to send 15,000 men to the Jhelum Canal to find relief for them there. But by the end of March famine was practically over. Large sums of money were advanced for the purchase of cattle, and Rs. 8,000 were distributed for the purchase of seed.

Mortality from famine has always been insignificant. The District is little liable to severe famines. Programmes of relief-work are ready in case scarcity should ever again become serious.

CHAPTER III.—ADMINISTRATIVE.

Section A.—Administrative Divisions.

CHAP. III, A.

Administrative Divisions

Head-quarters.

The administration of the Ráwalpindi District consists of a Deputy Commissioner with usually five Assistants or Extra-Assistants, and a District Judge. During the hot weather there is always a European Assistant Commissioner posted at Murree in charge of that Sub-Division, but he does not usually remain in the District in the cold weather.

The District forms part of the Ráwalpindi Division which has its head-quarters at Ráwalpindi, and the Deputy Commissioner is subordinate to the Commissioner and Superintendent of the Ráwalpindi Division. A Divisional Judge is also posted at Ráwalpindi to whom the District Judge is subordinate.

Tahsils.

Each Tahsíl is in charge of a Tahsíldár assisted by a Náib, except Murree where the work is not heavy enough to require a Naib Tahsíldár. During the summer months, however, the Náib Tahsíldár on special duty in connection with the granting of trees from village guzáras assists the Tahsíldár of Murree in criminal and revenue work. Similar guzára work is also undertaken by the Náib Tahsíldár, Kahúta, in that Tahsíl. Otherwise it is very doubtful if there is any necessity for a Náib Tahsíldár at Kahúta.

Subordinate Revenue Staff.

The subordinate revenue staff consists of one District Kanungo with two Náibs, 16 Kánungos, 217 Patwárís and 14 Náib Patwárís, thus distributed :—

Tahsil.	KANUNGOS.			PATWARIS.		
	Office.	Field.	Total.	Patwaris.	Naibs.	Total.
Ráwalpindi	1	4	5	76	5	81
Gujar Khan	1	4	5	74	4	78
Kahúta	1	2	3	43	3	46
Murree	1	2	3	24	2	26
Deputy Commissioner's Office.	3	...	3	...	...	...
Total	7	12	19	217	14	231

Magistracy.

The Deputy Commissioner is also District Magistrate. The District Judge is always a Magistrate and usually has enhanced powers to try all offences not punishable with death and to pass sentence of imprisonment for a term not exceeding seven years. In the exercise of these powers he is subordinate to the District Magistrate. All Assistant and Extra Assistant Commissioners are Magistrates of the first class. Tahsíldárs are invested with the powers of a second class Magistrate, and Náib Tahsíldárs

THANA CIRCLES.

1. Sangjani.
2. Rawalpindi.
3. Bhrakau.
4. Rewat.
5. Jatli.
6. Mandra.
7. Gujar Khan.
8. Kallar.
9. Kahuta.
10. Kotli.
11. Murree.

CHAP. III, A.

Administrative Divisions.

with those of Magistrates of the third class. In addition there are a Cantonment Magistrate and an Assistant Cantonment Magistrate in the Ráwalpindi Cantonment, and during the summer months a Cantonment Magistrate in Murree Cantonment.

Magistracy.

There are the following Magistrates in the District exercising powers of various classes over various areas of jurisdiction :—

Name.	Criminal powers.	Powers exercised as a Bench (315 C. P. Code.)	Local area of jurisdiction.	REMARKS.
Tara Singh, Sardar ...	...	2nd Class 25-2-85.	Ráwalpindi Municipality.	
Haidar Shah, Mir ...	...	2nd Class, 23-3-88.	Ráwalpindi Municipality.	
Dhanjibhai, Mr. F. Commadore, Khan Bahadur, C.I.E.	1st Class, 15-8-94, (w), 25-3-90.	...	Ráwalpindi District.	
Gurbakhsh Singh, Bedi, of Kallar.	1st Class, 6-5-04.	...	Tahsils Kahúta and Gujar Khan, except the village Daulatala in Ráwalpindi District.	Hony. E. A. C.,—*vide* Pb. Govt. Not. No. 1004, dated 14-7-98.
Azim-ullah Khan, Pensioned Risaldar.	...	2nd Class, 19-10-95.	Ditto.	
Karmdad Khan, Raja, Risaldar.	2nd Class 4-5-01.	...	Kahúta Tahsil.	
Attar Singh, Chaudhri.	2nd Class 10-10-04.	2nd Class, 10-10-04.	Ráwalpindi Municipality.	
Powell, John	1st Class 1-10-02.	...	Murree Tahsil, Ráwalpindi District.	
Mohan Singh, Malik ...	2nd Class 13-11-04.	2nd Class, 13-11-04.	Ráwalpindi Municipality.	
Gurmukh Singh, Chaudhri.	2nd Class (w), 6-2-04.	2nd Class, 6-2-04.	Ráwalpindi Municipality.	
Adamji Mamooji, Seth.	2nd Class 20-10-06.	2nd Class, 20-10-06.	Within the local limits of the Municipality, Ráwalpindi.	
Raghu Nath of Dumeli, Subedar-Major.	3rd Class, 20-10-06.	2nd Class, 20-10-06.	...	
Hukam Singh, Risaldar-Major, Sardar Bahadur.	3rd Class, 13-9-05.	...	Local limits of Gujar Khan Tahsil.	

Police.

The police force is controlled by a Superintendent of Police with one or more Assistants. The Civil Surgeon of Ráwalpindi is also Jail Superintendent. The Civil Surgeon of Murree during the summer months holds a separate charge, but the general medical charge of the District is with the Civil Surgeon of Ráwalpindi.

Court of Wards.

The Court of Wards for the District is the Deputy Commissioner. There is at present only one estate that of the late Sardar Hardit Singh, Ráwalpindi, under his management. An Extra Assistant Commissioner has recently been appointed on special duty as Manager under the Deputy Commissioner.

The property is a very large one with an estimated gross value of about Rs. 44,20,876. It includes 22,332 acres of land held in proprietary right or under mortgage in 6 districts, moveable property valued at Rs. 3,35,880 and productive house-property worth Rs. 12,78,850. There are no debts. The estate

CHAP. III, A.

Administrative Divisions.

is no easy one to manage, with its large areas under kind rents, its big contract, banking and money-lending business, its enormous house property and its unfortunate legacy of litigation.

Forests.

The forest administration is controlled by a Deputy Conservator of Forests who is also in charge of the forests of the adjoining District of Attock.

Civil Justice.

In the administration of Civil Justice the District Judge is assisted by all the Assistant and Extra Assistant Commissioners, of whom one is Sub-Judge, and by a Munsif posted at Ráwalpindi, and by the Cantonment Small Cause Court. The old Munsif's Court at Gujar Khan has been closed. A separate Munsif is posted at Murree for three months during the hot weather. The Tahsíldárs have civil powers of the second class. Bedi Gurbakhsh Singh of Kallar exercises civil power of the second class throughout Gujar Khan and Kahuta Tahsíls, Rája Karamdád Khan of Kahuta similar powers throughout Kahuta Tahsíl, and Sardár Bahádur Hukam Singh, Risaldar-Major, civil powers of the third class throughout Gujar Khan Tahsíl. All three are Honorary Judges.

Village autonomy.

It is doubtful if village autonomy was ever, at least within time of British rule, very strongly marked. The custom of living in detached and often remote hamlets, forced on the people by the physical characteristics of the tract, cannot have conduced to the growth or maintenance of the panchayat system. The democratic hill man probably never submitted himself to the judgment of his elders. Even the tribesmen of the plains do not look up to their elders with that reverence which the memory of tribal administration would keep alive. In any case the Council of Elders has now no place in the district administration. The peculiarities of tribal organization have already been noticed. Government is solely in the hands of the district staff. Zaildárs and inámdárs recently appointed, and lambardárs render some assistance. An account of Zaildár and Inámdár arrangements is given at page 194.

Section B.—Civil and Criminal Justice.

Criminal Courts.

There is no special characteristic in the constitution or jurisdiction of the criminal Courts of the district. The District Judge has Section 30 powers, and assists the District Magistrate in the more important cases, but under the Chief Court's orders it has been for some years and still is the practice for the District Magistrate himself to deal with all dacoity and culpable homicide cases. All Courts are hardworked. Crime is common and of a serious kind. There is still a tradition of lawlessness in the district. In former years the high roads were universally unsafe. Passing through the limits of different tribes, travellers and caravans had to satisfy the rapacity of each, or they had to submit to be plundered

Crime.

and ill-treated. In particular the villages in the vicinity of Golra under the Margalla Pass waxed prosperous on the wealth extorted from travellers on the much-frequented Margalla route. Not yet have they forgotten those halcyon days, or lost the criminal spirit. The tribes of the district have always been turbulent. The district has never been free from notoriously lawless spirits, and it is doubtful if even now organized gangs of depredators are quite unknown. The District Magistrate of Rawalpindi has always had one of the most difficult and important charges in the Province. With foreign territory so near on three sides a criminal needed only a short start to laugh at justice and escape its grasp. The people generally do little to help in criminal investigation, and at the present moment there are in spite of all efforts two notorious murderers concealed by their friends in the Murree hills. This too though large rewards for their apprehension have been offered.

A peculiarity of the district is the preponderance of serious crime. The Ráwalpindi zamindar has no enthusiasm for petty crime. Murders on account of the unfaithfulness of women, burglaries and thefts unattended with aggravating circumstances, affrays with and without homicide, may still be said to form the staple of crime. The annual average of murderers is about 30. In this respect the district enjoys a bad pre-eminence in the Province. Many of the murders are committed at night on persons lying asleep, an axe being used, and are exceedingly difficult to prove against any one. The criminal use of poison is more common in this district than in the rest of the Province. Robbery, dacoity and to a less extent theft are largely the work of professional criminals frequently banded together in gangs. It is certain that large numbers of dacoities, house-breakings and robberies occur year after year which are never reported to the police.

Naturally a great deal of the time of the criminal Courts is spent on cases of security for good behaviour. This class of work is particularly heavy in the district. There are many influential persons in the district who harbour thieves, practise extortion, and habitually commit offences involving a breach of the peace.

But their commanding influence in the neighbourhood makes it very difficult to procure evidence against them.

The following remarks by the present District Magistrate, Mr. P. D. Agnew, are of interest and confirm the remark that petty crime is not a feature of the district:—

"The increase in the institution of petty complaints, and the decrease in the number and percentage of those dealt with under Section 203 (*i.e.*, dismissed *in limine*) largely coincide, I fear, with the increased amount of such petty work dealt with by Honorary Magistrates, and by one in particular. The best Honorary Magistrate is usually a pensioned Civil Officer. The pensioned Military Officers,

CHAP. III. B.

Civil and Criminal Justice.

Crime.

who form the class from which Honorary Magistrates are mostly drawn in this district, have seldom the turn of mind which goes to the making of a good Magistrate, and their Courts tend to become a focus of local intrigue and litigation. Applications for transfers of cases from these Courts are exceedingly common."

A great deal of the petty crime is accounted for by forest offences and by cantonment cases. Offences against Forest Rules and Regulations are very common in both Murree and Kahuta Tahsils, and there is always a considerable body of ill-behaved persons hanging about the Ráwalpindi and Murree Cantonments.

Crime varies in volume for many reasons, but in general the variations are slight. In 1899 and 1900 an alarming wave of crime overspread the district, but by 1901 had spent its force. It was no doubt due to the general scarcity of food. Famine probably will always have such an effect in this district. The tendency is for violent crime to decrease, and for law abidingness to increase, but the tradition of violence is still alive, and crime varies with the efficiency of district administration.

Civil litigation.

The cases dealt with by the Civil Courts are neither particularly heavy nor particularly important. The commonest of all cases is a claim on a balance on account in a bunya's book. Suits on unregistered bonds and other suits for money or moveable property usually account for about 90 per cent. of the cases. Miscellaneous work is light. The value of the suits is generally small. Practically all important suits come from Ráwalpindi City and Cantonment. The great majority of cases are petty.

Within recent years the volume of case work in the Civil Courts has enormously decreased. First famine and bad harvests reduced litigation. Then the Land Alienation Act had a great effect. Finally the Loans Limitation Act, the Pre-emption Act, and especially plague prevented plaints being presented. The effects of the Land Alienation and Pre-emption Acts will be permanent. Plague and famine when they occur will always reduce litigation. Cases are always conducted with borrowed money, and any contraction of credit has its effect on the volume of civil business. The people are not naturally litigious. The urban population is 94 per cent. of the total population. The money-lending classes are not strong. It is not probable that civil suits will ever become unduly numerous.

The Bar.

The Local Bar consists of 14 barristers, 11 pleaders, first grade, and 15 pleaders, second grade. Petition-writers of the first grade number 20, of the second grade 53. There are now no revenue agents.

Registration

Registration work is light. Wills number about 20 each year. Sales and mortgage account for most of the registered documents. The Land Alienation Act greatly reduced the volume of registration

CHAP. III, B.

Civil and Criminal Justice.

work, but there are signs of a revival. Harvests have been good. Variations are chiefly due to scarcity which causes the capital, other than land, of many of the peasant proprietors to disappear and forces them to apply for credit to the money-lenders.

Registration.

The Registration Offices are given in Table 37 of the statistical volume of the Gazetteer.

Section C.—Land Revenue.

Classification of villages.

Of the 1,174 villages in the district at the second Revised Settlement, 25 were classed as zamindari, 273 as pattidari and 876 as bhaiachara. Bhaiachara villages are the commonest type, and that to which all villages are approaching. The zamindari tenure is, and since Sikh times has always been gradually disappearing. Partition or the entry of a malik kabza into the village at once changes the tenure. The tendency is for villages held on this tenure to change to pattidari as the number of owners increases, while pattidari villages as time goes on tend to change into bhaiachara, as the lands held by each sharer become more and more unequal in value and in extent. There is no contrary tendency. Only in very small villages, with a few shareholders all closely related, do the proprietors find it less troublesome to throw the profits into a common fund and divide them, than to manage their holdings separately. There are no such villages in the district. In the Murree Tahsil and Pahar and Kahru Ilakas of Kahuta Tahsil the waste can be partitioned only with the sanction of the Deputy Commissioner. Proprietary right in the waste therefore follows in many cases ancestral shares. But in practice there is no common income to divide. Each proprietor brings under cultivation as much land as he finds convenient, and is secure from ejectment. Possession cannot be adjusted to coincide with shares, and no rent is realized by the village proprietary. The effect is that possession becomes in practice the measure of right, and it is usual for a shareholder to describe and think of what is really "hissadari kasht" as "malkiyat."

In zamindari khalis villages the sole proprietor takes all the profits and pays the whole revenue direct. In "zamindari biljamal" villages the proprietors collect into one fund the grain or cash rents of such lands as are cultivated by tenants, and after deducting Government revenue and the village expenses and cesses, divide the net profits among themselves according to ancestral shares, or in such manner as may obtain according to ancient usage. The division of profits is not always uniform. In some cases they divide the gross proceeds, and each shareholder pays his share of the revenue. In others the whole proceeds are converted into money either with some Khatri or with some one of the proprietors capable of managing the business, the Government

CHAP. III, C.
Land Revenue.

demand is paid, and then the remaining profits are divided according to the recognized shares.

Pattidari villages.

In pattidari villages the measure of right is ancestral shares (hissas jaddi) or ancestral shares modified by incidental circumstances, such as purchase, relinquishment by certain sharers and so on (hissas rasdi). The profits arising from the cultivation of lands held in common by the whole community, from miscellaneous dues, and from other sources are very much the same as in the zamindari tenure. The revenue is paid in pure pattidari village according to hissas jaddi or hissas rasdi as the case may be. The shares in pattidari villages are generally known as "bund" or "wand." In some villages they are divided on ploughs, each plough consisting of as much land as it is assumed can be turned up by one plough. In others shares are divided accordingly to maunds, a maund being taken to be 8½ kanals. But in general the shares are calculated by numerical fractions.

Bhaiachara villages.

In bhaiachara villages possession is the measure of right. The profits are divided in ratable proportions on the extent of the holdings, the revenue assessed being the standard of comparison. Many of the bhaiachara and some of the pattidari villages are divided into large sub-divisions called tarfs. These may be divided off entirely or not. It is by no means essential that the lands of each taraf should lie in one compact block. Many villages are "khetbat" by tarafs. In many villages too the division into tarafs has not been extended to all the village waste. In Charihan, Tahsil Murree, for instance, portion of the waste is common to the whole village, the remainder being divided into portions common to each taraf. In some of the villages classed as bhaiachara the revenue in one taraf will be paid on ancestral shares as in pattidari tenure, in another on holdings. In such cases it will usually be found that the tarafs are owned by separate tribes. Such cases are rarer than they used to be, and the pure Bhaiachara tenure is most commonly met with. The tarafs to be found in many of the bhaiachara villages are usually merely relics of the time when they were held on pattidari tenure.

In the great majority of cases, tarafs are divided into a number of pattis. Each patti is usually named after an ancestor of the present occupants. In pattidari villages tarafs are named in the same way, but in Bhaiachara villages they are generally named after different tribes or gôts.

Distribution of the revenue demand.

These differences in village constitution are reflected in the different methods of internal distribution of the total village demand. In some villages the lands of different tarafs in the same village are of such different degrees of fertility that different rates have been fixed to be paid on the land of the different tarafs. Occasionally the separation ot tarafs is so complete or conditions of the tarafs so distinct that the total to be paid by each taraf has

CHAP. III, C.
Land Revenue.
Distribution of the revenue demand.

to be fixed by the Settlement Officer, when the amount of revenue to be paid by the village in future was announced. But in general there is little complexity in the internal distribution of the revenue demand. The revenue is distributed either by fixed rates on each class of soil (parta kismwar), or by common average rate (parta sirsiri) irrespective of the capacity of the land. In more than a third of the villages of the district the revenue falls equally on all classes of soil, whether irrigated or unirrigated. In another third there is a common rate for all unirrigated lands.

More than half the pattidari villages (141 out of 273) pay revenue not according to shares, which are the measure of right, but according to possession alone, as if the tenure were bhaiachara. In addition all the zamindari villages are shown as paying revenue according to possession.

The following table shows how many villages have adopted each method of payment:—

Method of payment.	Villages.
By one common rate on all lands irrigated or unirrigated	404
By one common rate on unirrigated and another common rate on irrigated lands.	190
By a soil rate on unirrigated lands	439
By ancestral shares	132

These figures show the difficulty of correctly classifying the villages as zamindari, pattidari or bhaiachara. The constantly unsettled state of many parts of the district, and the complete break up of old forms, which was the result of the Sikh exactions in many villages have rendered the system of tenure dependent on changes of recent date, and on incidental circumstances connected with the estate.

It is true to some extent of Rawalpindi, as of other parts of India, that the village communities have to a wonderful degree preserved themselves even in the most troublous times; but we do not find here the same old archaic forms that are to be met with further south.

Sikh exactions did more to break up old villages than any of the wars and invasions which preceded them. The Sikhs demanded their revenue, whether in kind or by cash appraisement, and if they could not get it from old proprietors, they put in new ones, and action of this kind naturally effected great changes in the form of village tenure as well as in the proprietary classess.

The absence of the panchayat system has already been noted. It is very doubtful whether it ever had much authority. Village menials are practically independent of the village community.

CHAP. III, C.

Land Revenue.

The usual bonds or signs of communal village life are generally either non-existent or inconspicuous.

Headmen.

Village headmen are appointed in each village, and their rights and duties are governed by the Land Revenue Act and the rules under it. But throughout the district, and especially in the hills, lambardars have little influence in their villages. The democratic element in many of the tribes is against them, and it is not usually possible to find for the lambardari a man of very high status.

Chaukidárs.

Village chaukidars are appointed in the usual manner. The traditional method of payment is as in the case of village menials by a percentage of the grain at each harvest, but the system of cash payments has gradually grown, and it is now proposed to fix a cash remuneration alone for the chaukidars of all villages. This is perfectly consonant with popular wishes, and the change is one in which a great deal of interest is shown. The "dharwai," or weigher out of grain and other products, once to be found in all villages, is now to be met with in only a few.

Dharwái.

The *dharat* is almost always occupied by a Khatri, and various customs obtain as to the amount of weighing fees to be paid, and their division after receipt. In some cases these rates are paid by the purchaser, and vary from one pie per rupee to three pie, or are paid in kind at one *pao* or one-quarter ser per maund; sometimes they are paid by the vendor. In most cases the *dharwái* takes the whole of the proceeds, in some he has to share with either the lambardárs or the leading family of the village. In return for the monoply of these fees, the *dharwái* is bound to send supplies for sale to the camps of officers on tour, and to perform other duties of a similar nature.

Other village menials have already been noticed.

Customary dues.

The customary village dues show well how far severalty has gone.

Puchh-bakri is one of the best known fines exacted by owners. It consists either in a cash payment of from Re. 0-8-0 up to as much as Rs. 10, or of a goat or a *pagri* to the owners on the occasion of the marriage of the tenant's daughter. These dues are heaviest in Murree. They are usually taken from all residents in the village who are not full proprietary owners in the estate. The custom is by no means universal, obtaining in about one-fourth of the villages of the district, and is commonest in Murree, where it is almost universal.

Hak buha is a due exacted from *kamins* and non-proprietary residents in certain villages, in all about one-twelfth part of the district, amounting to from Re. 0-4-0 to Rs. 2 per house. It is, in fact, a door tax (*buha* or opening) levied on inferior classes by the proprietors of the village. It is not known in the hill tracts.

Banna bhár is also not uncommon, and consists in the owners taking a certain amount of the straw (*bhúsa*) from the tenants in

CHAP. II, C.

Land Revenue.

Customary dues.

addition to their rent. Green fodder (*khawíd*) is also sometimes exacted, and it is not uncommon for owners, when powerful, to claim a share of the straw as well as the grain of crops grown on lands paying kind rents.

Mohassali is a cess levied by the owner's agent, who has been entrusted with the duty of watching, stacking and dividing the crops: the *mohassal* gets from one to two sérs of grain per maund from the common store before partition.

Most of these dues are in the nature of rent or payments by a cultivator to a single owner. Only *hak buha* is a payment to the joint village proprietary, and in many cases it is made to one or more of the owners who are supposed to have an interest in the house occupied. Puchh-bakri is an acknowledgment that a joint proprietary body did originally exist, but in no single case is the due credited to the village fund or enjoyed by the whole village community.

Lambardárs.

It will be convenient here to notice the lambardári and zaildári system. Headmen, remunerated in the usual way by a pachotra of 5 per cent. of the revenue, are appointed in every village. Their numbers are given below:—

Tahsil.	Number of villages.	Number of lambardárs.
Ráwalpindi	449	695
Gujar Khan	383	747
Kahúta	240	431
Murree	102	189
Total	1,174	2,062

(Chief headmen are not appointed.)

Zaildárs.

Zaildárs are a very recent arrangement. Previously their place was taken by "inámkhors," who enjoyed "ináms" of varying values. These "ináms" were originally paid out of the patwári cess, but about 1885 the Punjab Government ruled that this was the wrong source from which to pay these rewards. New arrangements were made, and 1¼ per cent. of the revenue was set aside as remuneration to inámkhors. To a large number of lambardárs and prominent zamíndárs the ináms granted from patwári fees were continued for life, the remaining inámkhors being paid from the charge on the revenue. The principle to be observed in distributing these ináms was that they were to be awarded to prominent and influential lambardárs of the various tribes of the district in reward for services rendered to the district administration in the past, and in return for a continuance of such service in the future. They were to be distributed in such a way that no large tract would be without an inámkhor, and were

CHAP. III. C.

Land Revenue.

Zaildárs.

to be given at places, such as camping-grounds, where much assistance is demanded from lambardárs, and to heads of important families who had influence in the neighbourhood and who had shown themselves loyal and well-disposed. No inámkhors' circles were made, but the distribution was made according to the old fiscal divisions or "ilakas." Grants were made for life and good conduct, and succession was governed by the condition that the vacant inám must be given in the same ilaka to one of the same tribe as the deceased "inámkhor."

This system worked badly. Ináms were sometimes given as a reward for past work, and but seldom as an inducement to future work. The inámkhors included even retired patwáris and petty contractors. Every vacant inám was the occasion for intrigue and contention not only among claimants for ináms, but also among existing inámkhors. Instances were not wanting of ináms which had gradually increased out of all proportion to the merits of their holders, and of redistribution which resulted in the concentration of several ináms in one village or even in one family. Vacant ináms were filled up from anywhere within the tahsil, in which the inams fell vacant. Men were appointed who were not lambardárs, nor the head of their families. In some cases ináms were given as pension to men of apparently deserving character, or of old family, who had fallen on poverty and evil days. Men in possession of jagirs of any value were excluded from receiving ináms, with the result that some of the most influential men in the district were not inámkhors, nor liable to be called on to perform the duties which may be required of inámkhors.

In 1897 Mr. Wilson, then Deputy Commissioner, being much impressed with the inefficiency of the inámkhors, devised circles of villages for every inámkhor then existing. He found the inámkhors so badly grouped and sometimes so badly selected that he was compelled to appoint several honorary inámkhors, who enjoyed no ináms but to whom circles were given and duties assigned. But the final solution of the question was left to the Settlement Officer.

In 1906 the present zaildári arrangements were introduced. The existing 110 inámkhors, who held their ináms only for the term of settlement and had no legal or moral claim to continue in enjoyment, were replaced by the present zaildárs and inámdárs. Many of the old inámkhors received the new appointments. Sanction to the establishment of the office of záildar was given in Under-Secretary to Government's letter No. 4 of 6th January 1906, to the address of the Senior Secretary to the Financial Commissioner. Zaildars were to number 48. A percentage of the land revenue fixed at 1·01 per cent. was sanctioned for the remuneration of zaildárs, and the system of gradation was approved of. In the formation of zail circles tribal limits were taken into consideration, and in every case zail and thana limits were made to agree. For strong tribal reasons the village of Kamra has been left in two zails,

but everywhere else zails are separate and do not overlap. The main difficulty was geographical and not tribal. Where internal communications are generally extremely bad there was little advantage in appointing zaildars to zails which they could not get about in. The zails are small and numerous, but regard had to be paid to the feelings of people at large and the existing inámkhors.

Three grades of zaildárs have been made, and the remuneration so fixed that a first grade zail should be a notable distinction and a third grade zail something of a disgrace except to a newly appointed zaildár. Existing inámkhors were appointed wherever possible. The zaildárs belong to the predominant tribe in the zail and are of good birth and have considerable property. The inamdárs have no very definite duties to perform except as understudy to the zaildár. They have not been given separate circles but will generally be given separate duties in charge of camping grounds and the like under the control of the zaildár. There is one inámdár to every zail except in Murree where there are generally more than one inámdár in a zail. In that tahsil too ináms are of two grades. Elsewhere no gradation of ináms has been attempted. In Murree the distribution and gradation of ináms in each zail will remain constant throughout the term of settlement. Ináms are tenable only in the zails to which they are originally attached. Compensatory ináms to the amount of Rs. 500 per year have been granted for life or the term of settlement to several of the old inámkhors who have been passed over, especially to those whose only misfortune was that they were crowded out by better men. No compensation has been given to those passed over on the ground of unfitness or disqualification.

The following statement shows the name of each zail, with the number of villages in each, the total revenue, and the dominant tribes in each:—

Tahsil.	Name of zail.	Number of villages.	Annual land revenue.	Prevailing tribe or tribes.
			Rs.	
Ráwalpindi.	Ranial	21	14,530	Rájpút.
	Phulgraon	11	4,930	Dhund and Gakhars.
	Dhamial	25	13,170	Dhamial Janjua.
	Golra	27	18,450	Awán.
	Ráwalpindi	31	27,540	Awán and miscellaneous.
	Tarlahi Kalan	37	30,330	Rájpút and Brahmans.
	Rewat	45	19,490	Rájpút, Awán and Gujar.
	Saidpur	24	12,450	Gakhar and Rájput.
	Dheri Shahan	22	16,880	Khattar, Gujars and Sayads.
	Sang Jani	17	13,790	Khattar and Awán.
	Basali	40	19,910	Gakhars and Rájpút.
	Banda	56	25,580	Rájput, Awáns, Gujars.
	Bhammar Tarar	23	11,270	Dhanial.
	Sihála	18	11,120	Moghal and Rájpút.
	Bijnial	22	14,950	
	Malpur	21	15,430	
	Pind Begwál	9	12,580	Dhanial.

CHAP. III C.

Land Revenue.

Zaildárs.

Tahsil.	Name of zail.	Number of villages.	Annual land revenue.	Prevailing tribe or tribes.
			Rs.	
Kahúta.	Dera Khálsa	22	10,780	Rájpút-Bhatti.
	Beor	16	4,120	Moghal-Janhals.
	Letrar Bala	17	3,040	Satti.
	Kallar Saidan	27	28,000	Kathril-Gujar.
	Bishandot	16	14,900	Rájpút-Bhatti.
	Mator	15	9,490	Gharwál Rajputs.
	Doberan	31	16,540	Gakhars and Gharwál Janjuas.
	Hanesar	23	7,150	Gharwál Janjuas.
	Narar	7	1,830	Satti.
	Kahúta	48	14,210	Rájpút, Dhulal and Janjua.
	Panjar	19	2,440	Jaskam.
Murree.	Charihan	2	3,200	Kethwal.
	Karor Dhaniál	14	2,990	Dhaniál.
	Kotli	19	5,220	Satti.
	Tret	19	2,720	Dhunds and Sayads.
	Murree	48	10,370	Dhunds and Kureshis.
Gujar Khan.	Jatli	27	22,480	Rájpút, Gujar.
	Missa Keswál	27	18,680	Rájpút, Awán.
	Bewal	28	23,210	Rájpút, Bhatti.
	Bagham	21	7,740	Gakhar.
	Kuri Dulal	27	14,830	Dulal Rájpúts.
	Naráli	16	19,890	Rájpút.
	Rawán	20	26,170	Gujar and Rájpúts.
	Sukho	31	17,580	Rájpút, Gakhars and miscellaneous.
	Mandra	23	9,440	Awán.
	Kaniát Khalíl	22	15,030	Gakhar and Rájpút.
	Guliana	18	14,600	Rájpút.
	Kázián	26	18,560	Ràjpút, Awán and Brahmans.
	Sayad	30	19,540	
	Sang	28	13,130	
	Gujar Khan	41	15,120	

The following statement gives the grades and remuneration for each tahsil :—

Tahsil.	Zails. 1st grade. Number.	Zails. 1st grade. Remuneration.	Zails. 2nd grade. Number.	Zails. 2nd grade. Remuneration.	Zails. 3rd grade. Number.	Zails. 3rd grade. Remuneration.	Inams. Number.	Inams. Remuneration.
		Rs.		Rs.		Rs.		Rs.
Rawalpindi ...	4	200	9	150	4	100	17	50
Gujar Khan ...	3	200	8	150	4	100	15	50
Kahuta	3	150	5	125	3	100	11	50
Murree	1	120	2	100	2	80	3 1st grade 7 2nd grade	60 40

Proprietary tenures.

Compensatory ináms vary from Rs. 20 to Rs. 50 per year and the total amount granted is Rs. 500 per annum.

There is nothing peculiar in the proprietary tenures of the district.

Colonel Cracroft at Regular Settlment wrote as follows on the effects of the constantly disturbed state of the district, and the Sikhs' conquest and subsequent exactions—

"Sufficient has already been stated in the second chapter to show that, from the oldest times, the district has been overrun by hordes of invaders, from the Greeks to the Afghâns. These invasions have left but few and very faint traces, for the district was not an alluring one to tribes impelled by the thirst for plunder and wealth to more distant lands. They swept through it and disappeared, sometimes leaving a few settlers to perpetuate their memory, but more often disappearing without leaving a trace for history to record. The temporary desolation, the plundered houses, and deserted homesteads, were all things of the hour, and are now forgotten. And yet, perhaps, it would be incorrect to say that no trace at all is left of an ever-fluctuating existence, uncertain of peace even for a moment. It is to be discerned in the restless, fickle, and inconstant character of the population, and in the party spirit and state of faction, the blood feuds and fierce enmities, which exist to the present day. These are worst in the western portion of the district, where for centuries no strong Government has existed capable of curbing the passions of the people. The rule of the Gakhars subordinate to the Moghal emperors reigning at Delhi did not extend beyond the Márgalla Pass, and the Khattaks exercised but limited authority. The Delhi emperors treated this as one of their outlying *súbahs,* and held a nominal sway. The Gakhars reigned only as feudal lords, and they were at the mercy of successive invaders. They exacted tribute from some, and managed their estates or principalities fiscally. They also acquired rights in land, and now exist as part of the proprietary body of the district.

"The Sikhs supplanted the Gakhars. Their rule was a military despotism. They interfered largely with the landed tenures. Their aim was to exterminate all classes and families with any pretensions to ruling power, and their strongest measures were accordingly levelled against the Gakhars, and all the gentry who shared with them in the management of the country. Their custom was first to grant a *jágír,* to resume it later, granting in lieu a *chaháram,* or fourth part of the assets or revenue, as the case might be, and ultimately to absorb the *chaháram* substituting for it an *inám* or two granted to the principal men of the tribe. This process was not effected without bloodshed and political commotions; but such has in turn been the history of the chief families of the district. The Sikhs were most powerful in the eastern part of the district. Accordingly, we there find the Gakhars exiles, or reduced to abject poverty; the Janjuás in receipt of comparatively small *ináms,* the Golrás almost extinct as a powerful clan; the Garwáls, Dulàls, and Dhaniáls shorn of the greater part of their possessions, beholding strange people, Brahmins and others, proprietors of their lands. The Sikhs did not, as a rule, take the proprietorship of land into account at all. They simply looked to their revenue. If a proprietary body was willing to engage for the revenue on their terms well and good, the engagement was made with the headmen of that body, who generally received *ináms,* and were always able, from the support they received from the Sikh officials, to obtain for themselves terms more favorable than the body of proprietors. If, for instance, the revenue was

CHAP. III, C.

Land Revenue.

Proprietary tenures.

taken by appraisement of the standing crop, the lambardár, or *muqaddam* as he was then called, had his crop appraised at more favorable rates; and if there was a lease, he would often evade payment of the demand on his own land, or be let off with a nominal amount. The rest of the proprietary body was ignored altogether. If, on the other hand, the proprietors were refractory, the Sikhs did not hesitate to farm the estate, locate cultivators with all the rights of property, and expel the rightful owners. The result of this state of things in the eastern part of the district has been indescribable confusion in the tenures. On the annexation of the province to the British Crown, all the resident classes, whether original proprietors or not, at once came forward and engaged for the revenue; and it has been only by slow degrees that the proprietors have ascertained that the British Government recognizes rights in the soil, which the Sikh power ignored.

Proprietary tenures took their present shape at Regular Settlement (1860-64) when most exhaustive enquiries were made in course of preparation of the new record-of-rights. Nearly 27,000 cases were decided, involving whole villages, distinct shares of villages or holdings. Parties dispossessed claimed their ancestral shares. In some villages the revenue demand had been leased to lessees, often entire strangers, or alienated to jagirdars, and the original proprietors claimed to have their rights revived and recognized. Sometimes cultivators claimed against proprietors, or *vice versâ*. The rule of decision was in general possession and in all cases regarding proprietary right, except where a cultivator claimed, the period of limitation was taken as twelve years, counting from the date of institution of the suit. In many cases ancestral shares, though remembered, had fallen into disuse. It was notorious that before British Rule all the parties had been on similar terms. In most of these cases the claimants were admitted to proprietary rights of their holdings on the ground that they had never enjoyed ancestral shares.

The treatment of lessees of the Government demand was not uniform. Some were maintained as proprietors on account of the complete dispossession of the original proprietors, who had never engaged for the revenue, or incurred any responsibility. Others were recorded as proprietors of only those holdings for whose cultivation they had arranged, and the engagement was made with the original proprietors. In other cases the lessees were of old standing, but their occupation was not without interruption. Still, even when the village was managed by the resident community, they had received some consideration, either in grain or in cash, and they were moreover zamindars of the neighbourhood. In these cases, the resident community was regarded as proprietors, and a talukdari allowance made to the lessees. Sometimes the lessees were declared proprietors, and the original proprietors cultivators, because the original proprietors had never engaged for the revenue, had paid in grain, or in one or two cases *bonâ fide* rent in cash, and had failed in successive settlements to keep up the leases. In a few villages in Rawalpindi Tahsil the lessee was

CHAP III. C.

Land Revenue.

Proprietary tenures.

declared proprietor of the village and the engagement was made with him for the revenue. The original proprietors were recorded as proprietors of their holdings, without any further share in the common profits or responsibilities of the village.

In some villages the jagirdar become "ala malik," and the original proprietary "adna malik." In Hatta and Papin, villages in Kahuta Tahsil, the resident body was declared proprietors, and the Satti jagirdars were awarded a talukdari allowance of 15 per cent.

But the most numerous cases were those in which cultivators claimed against proprietors. The Sikh power, which had humbled and crushed the proprietary bodies, dealt very gently with cultivators. The Sikhs' policy was to render the position of the cultivator secure. Often the proprietor was altogether disregarded and revenue realized from the cultivator. Often the Sikh demand had left no rent for the owner. The burden of revenue had been borne by all alike, or if revenue was taken by appraisement of the standing crop still all were on the same footing. The cultivator pled that he was of very old standing, had come to the village with the original proprietors, had never been dispossessed, had sold lands, had paid the revenue in cash on the same footing as the proprietor, had brought waste lands under tillage, had occasionally furnished from his class a headman, had planted trees and sunk wells, and had built dhoks or hamlets. In these cases the cultivator was decided to be either a *malik kabza* or a tenant paying rent.

The total result is the common rights of *talukdari*, *ala malkiyat adna malkiyat* and *malkiyat kabza*.

Talukdari right.

Talukdars are found in Rawalpindi and Gujar Khan Tahsils and among the Garhwal Janjuas of the Kahru Circle of Kahuta Tahsil. Their dues vary from 5 to 10 per cent. of the village assessment in Kahuta Tahsil, and from 5 to 15 per cent. elsewhere. A talukdar as such has no right whatever in the land and is entitled only to receive in cash his percentage of the land revenue. These allowances have been awarded in recognition of superior rights exercised by classes, who, though now debarred from the management of the estates, yet received by prescriptive right certain dues which they had acquired either from being rulers of the country, or from being managers during Sikh rule, or from being the real proprietors but dispossessed, and receiving these small dues in acknowledgment of their original right.

Ala and adna maliks.

There are no incidents of ala and adna malkiyat peculiar to the district. The distinction is due to compromises made at Regular Settlement between conflicting claims to full proprietary right. The ala maliks are entitled to nothing but small fixed dues, and in general have no rights in the waste.

CHAP. III, C.

Land Revenue.

Malikan kabza.

The nucleus of the class of malikan kabza are the tenures created at Regular Settlement in favour of cultivators who had for many years enjoyed undisturbed possession rent free and had often been directly responsible to the Sikhs for the revenue. But a very large number of the owners of this class acquired their rights by purchase or gift after the establishment of British rule. They are owners only of their own holdings and have no right over common lands or share in village profits.

Tenancy tenures.

There are practically only two kinds of tenants in the district—

(1) Tenants with rights of occupancy.

(2) Tenants-at-will.

The occupancy tenants of the district have obtained their rights in various ways. Some have obtained their status as a result of assisting the proprietors to bear the burden of the Sikh assessments : some obtained it as a compromise with the parties declared owners, the tenants giving up their claim to be declared proprietors in the village, which they despaired of proving, on condition of their being declared hereditary tenants. Many obtained it as a reward for giving evidence in favour of the successful party in a claim for proprietary rights. In the great majority of cases the status of occupancy tenant was definitely conferred during the Regular Settlement. The process is described thus in the report on that settlement :—

"Cases regarding the status of cultivators were contested with great warmth on either side. The cultivator tried to prove antiquity of tenure, the proprietor endeavoured to show that he, or his father, had located him, and had allowed him to remain on his lands, but that he was not, therefore, obliged so to continue him. The cultivator often pleaded that the proprietor had been in great straits, and had been rescued by the cultivating class, and that it was hard that he should be at the mercy of the proprietor in these good times, when in bad ones, he would have made any sacrifice to retain him. He also claimed to have brought waste land under cultivation, to have improved it by manuring it, or raising embankments, to have erected hamlets, planted trees, and the like. Sometimes the claim advanced was, that he was, in fact, an original proprietor; such claims fall under the preceding section. All these claims and pleas were gone into *seriatim*. The rule of limitation was ultimately applied with the greatest reserve in favor of the proprietor, and it was found that it satisfied him. At first a more detailed classification was attempted, with a view not to injure the interests of the cultivating class. It was ruled, after consultation with the heads of subdivisions, that a cultivator who had brought waste land under cultivation, and had paid cash rates for 12 years or who had received cultivated land, paid cash rates, and had possession for 20 years, or who had received cultivated land, paid in grain, and held for 30 years, prior to settlement, should be recorded an hereditary cultivator. But at last the practice resolved itself into this, that 12 years' clear occupancy prior to British rule, *i.e.*, A. D. 1848-49, should, under any circumstances, constitute a title to an hereditary cultivating tenure. It was asked of the proprietor himself, as suggested by Mr. Thornton, whether he considered he would, could, or would not, or

CHAP. III. C.

Land Revenue.

could not, oust a cultivator; in a great many cases he declared he would not; such a case was entered on what is called the *mudákhilat* paper, or statement of the rights and liabilities of cultivators, and considered at an end, unless either party subsequently came into court, endeavouring to show that his statement was incorrect, and that he had proof to substantiate his claim against that statement. The preponderance of the Sikh power had rendered the position of the cultivator secure, and such a burden had been imposed that, though theoretically the proprietor had the power of ousting the cultivator, practically he had never the will."

Previous to 1887 the status of hereditary tenants in the district was not very clearly defined or understood. Many of them were in the habit of alienating their rights, the owners, however, denying their power to do so. Where the owners were strong and the tenants weak the rights of the latter were correspondingly contracted. The incidents of occupancy tenancy are now determined by the Punjab Land Tenancy Act of 1887.

Tenants-at-will call for no special mention.

Land revenue under native rule. The Moghal demand.

The celebrated record, known as the "Ayín-i-Akbari," throws but little light on the state of the tract at that time. The whole Sind-Ságar Doáb, extending from the Hazára mountains to Mithankot, formed one *Sarkár*, part of the Subah, or Province of Lahore, and contained 42 *mahals*, a measured area of 1,409,979 bighás, or 704,989 acres, and paid a revenue of 5,19,12,201 *dams*, or Rs. 12,97,805. The *mahals* or *parganás* which can be identified as belonging, in whole or in part, to this district, forming part of this large tract, are:—

Mahals or Parganás.	Dams.	Rupees.
1. Phurwála, including parts of Ráwalpindi, Kahuta and Gujar Khan	51,58,109	1,28,952
2. Dangalli, including Kahúta, part of Gujar Khan, and part of Jhelum	33,01,201	82,530
3. Akbarabad Terkhery (Takhtpari), probably including parts of Ráwalpindi, Fatehjang, and Gujar Khan	54,91,738	1,37,293
4. Fatehpur Kalauri (doubtful; if correct, then Kalauri is a corruption of Báorah, Fatahpur Báorah was the Gakhar name of Ráwalpindi)	42,63,831	1,07,032
Total	1,82,14,879	4,55,807

The total revenue was, therefore Rs, 4,55,807. Considerable allowance must be made, however, as the limits of the fiscal jurisdictions are altogether unknown. It would not be safe to admit more than from three to three and a half lakhs as the revenue of the district at that period. In the "Ayin-i-Akbari" there is no account of any tribes inhabiting the district; the Gakkhars are only once alluded to as bordering on the *sarkár* of Pákhli, which contained the whole of Hazára. The notice of the *súbah* of Lahore is more meagre than that of almost any other Province.

CHAP. III, C.
—
Land Revenue.
Fiscal history during Gakhar rule.

The Gakhar kingdom included a part of the present Jhelum district on the south and was bounded to the east by the Jhelum River, to the north by the Márgalla Pass, and to the west, by the Khairi Múrat. No trace of them appears further west. Their power appears to have been derived from Sultán Mahmúd Gaznavi, the Great, to have commenced in about A. D. 995, and to have lasted until the advent of the Sikh power in A. D. 1770. During their rule, the district was divided into three *parganás*—namely, Dangalli, Pharwála, and Ráwalpindi, subdivided into *tappás*, mainly corresponding with the *iláḳâs* of the Sikh period. These, with some slight modifications, were adopted as the basis of sub-division for the regular settlement. In the margin are shown the Gakhar *iláḳás* and their present designation. The rule of the Gakhars extended over the present sub-divisions of Ráwalpindi (excepting Phulgraon and Kirpa Cherah), Gujar Khan, Kahuta (excepting hill tracts of Jasgám and Narai), and *iláḳás* Fatehjang, Sohán and Asgám of Attock District.

PARGANA DANGALLI.

Tappás of Gakhars.	*Present Ilakas.*
Haveli.	Kallar.
Kahru Mator.	Mator and part of Kabru.
Bewal.	Bewal.
Guliána.	Guliána.
Nurali.	Nurali.

(Four *ilakas* in the district of Jhelum.)

PARGANA PHARWALA.

Haveli.	Parts of Kahúta, and iláka Kuri, tahsíl Rawalpindi, and Mughal do. do.
Kahru Kahúta.	Iláka Kahuta.
Burali.	Sukho.
Arrah.	Arrah, tahsíl Ráwalpindi, and parts of Kallar, Sukho Devi.

PARGANA RAWALPINDI.

(No detail of *tappas.*)

The Gakhars realized rent by appraisement of the standing crop, called *zabt kankut*; it took place on each field, the rate was fixed each season according to the value of the standing crop and the price current as fixed by the heads of trades. They realized either in cash or grain, according to mutual agreement. Their rates do not appear to have been oppressive, and were less than those of the Sikhs; unfortunately but few records are now existing. Besides the revenue obtained from the crop, the Gakhars took the following dues from *khálsa* villages:—Five rupees per village in lieu of fodder; a tax of one rupee per milch buffalo; four annas per cow, and three pie per goat, &c., per annum. This tax was called *sáwan bandi,* being on account of *ghi* or butter. They also realized from the artizans from eight annas to one rupee per annum as *mutarrafa,* now known as *kamiána,* hak buha or door tax, and one rupee per season from each village to pay the daftari Kánúngo or record-keeper. From *jágir* villages they received a *nazarána* or quit rent, or seigniorage of ten rupees each season or twenty rupees per annum. They realized no revenue from the hill portion of the tract. If they had occasion to visit it on a shooting expedition, they received a present of a hawk or a mule.

CHAP. III, C.

Land Revenue.

Fiscal history of tahsil Rawalpindi during Sikh rule.

In A.D. 1770 the Sikhs had obtained complete mastery over the Gakhars. In the parganás of Fatehpur Báorah of the Gakhars (probably the Fatehpur Kalauri of Akbar's Institutes) the Ráwalpindi of Sikh and British Administration, and Akbarabad (the Akbarabad Terkheri of "Ayín-i-Akbari," evidently a corruption or mispronunciation of the Takhtpari of the present day), comprising together 669 villages, Sirdár Milka Singh granted the most notable tribes 192 villages in *jágírs* subject only to a fixed but very trifling tribute, and called these estates *mushakhsa*, in contradistinction to the villages kept under direct management, which he styled *khálsa*. These names became important in the adjudication of the rights of these tribes, and their origin is therefore noted. The marginal table shows the way in which the *jágírs* were distributed. In the remaining 467 *khálsa* villages, the Sikhs for a long time pursued the system in vogue with the Gakhars enhancing rates as their power increased. But in A.D. 1830 Mahá-rája Ranjít Singh, hearing of the grievous exactions of his officials, and of the unsatisfactory state of affairs, sent General Ventura to assess a portion of the district. His assessments affected the *ilakás* of Ráwalpindi, Takhtpari, Banda, Kuri, Mughal, and Sayadpur. They were fair and even light, but following on a period of much depression and overtaxation it was with difficulty they were realized. Unfortunately the agents who had to carry out these fiscal measures were rapacious and exacting, and gave the lessees no chance.

Jágírs.		Number of villages.
Gakkhars of Sayadpur	... ...	22
Do.	Aujri	2
Do.	Shekhpur	3
Do.	Ráwalpindi	7
Do.	Malikpur	1
Do.	Mandla and Chuneri of the hills of Murree and Phulgiran ...	10
Runiál } Pothial }	Tumair	2
Goleras	... ...	22
Janjuás of Runiál	... ...	6
Do.	Dhaniál	18
Sayads	Shalditta	2
	Total	192

Warned at last of increasing disaffection, Mahárája Ranjít Singh summoned the heads of tribes and villages to Lahore, treated them with hospitality and distinction, fixed comparatively light assessments, and sent them back to their homes, assured that what they had suffered was not at his hands, but was the work of his officials. He conferred on them a still greater benefit than even the light assessments, for he sent to realize them Bhái Dul Singh, a man of known integrity of character and amiable temper, whose name will long be remembered as a just and faithful steward. Dul Singh administered these *ilákás* for two years, and was succeded in A.D. 1840 by Diwán Kishankor of Siálkot, whose incumbency lasted until 1846. He raised the revenue and overtaxed the people. The land was visited during his rule by swarms of locusts so vast

CHAP. III, C.
—
Land Revenue.
Fiscal history of tahsil Rawalpindi during Sikh rule.

as almost to cause a depopulation of the country. They remained three seasons, namely from Kharíf Sambat 1900=A.D. 1843 to Sambat 1901=A.D. 1844. This calamity is known by the name *Makrimár* throughout the district. Nevertheless the Government Agent showed no consideration, and although the zamíndárs had no crops, he realized the revenue to the last farthing. Chiefly from this period dates the indebtedness of the proprietors to the trading class, which has reaped a rich harvest from their misfortunes; and to this time principally must be referred that complication in the tenures and transfer of proprietary rights to the cultivating class, which have entailed so much hardship on the proprietary body, and loaded our Courts with so large an amount of litigation. Unable to realize the demand even under these circumstances, the Government Agent often introduced cultivators of his own, gave them a fixed terminable lease and virtually admitted them to a title to the proprietorship of the holding. In short, the cultivating class had to put its shoulder to the wheel, and help the proprietor out of his difficulties, or the latter would have been entirely dispossessed. Diwán Kishankor was succeeded by the same Bhái Dul Singh who had preceded him; he again reduced the demand to something more resembling the figure at which it stood before Kishankor's incumbency.

The Ráwalpindi tahsíl was composed of 13 *ilákás* or fiscal subdivisions. These subdivisions though older than Sikh times were utilized by them for the distribution of revenue, and Colonel Cracroft also accepted them as assessment circles. A tabular statement compiled from the *darbár* papers, and other sources, of the Sikh assessment of 12 of these *ilákás* and of three belonging to other tahsils, is here subjoined. They are so grouped because of the identity of their circumstances during Sikh rule:—

Name of tahsíl.	Name of iláka.		Names and jama of successive Sikh Kárdárs.		
			Dul Singh from 1833 to 1839.	Kishankor from 1840 to 1846.	Dul Singh, 1847.
			Rs.	Rs.	Rs.
Ráwalpindi	Arrah		16,525	17,184	16,803
Do.	Dunda	1st	12,111	16,522	11,760
		2nd	3,647	4,633	4,446
Do.	Takhtparí... ...	1st	11,395	13,195	12,027
		2nd	9,894	12,587	11,297
Do.	Ráwalpindi		33,904	39,205	33,303
Do.	Sayadpur		14,231	15,235	15,426
Do.	Sangjáni		24,852	24,483	20,414
Do.	Kuri	1st	19,387	20,709	18,882
		2nd	6,639	6,798	6,603
Do.	Kharora		13,514	14,421	13,240
Do.	Mughal		10,626	11,441	11,637
Fatehjang	Asgám		24,824	30,289	27,074
Do.	Sohán		46,148	48,296	46,979
Gujar Khan	Devi		43,332	50,598	48,673

CHAP. III, C.

Land Revenue.

The only remaining *iláká* of tahsíl Ráwalpindi not accounted for in the group to which the foregoing sketch refers, is Phulgrán, a tract of which a portion was for several reasons transferred from tahsíl Murree to Ráwalpindi. Its fiscal history is that of Murree. The *ilákás* of Asgám and Sohán now belong to tahsíl Fatehjang, while Devi has been incorporated with Gujar Khan.

Fiscal history of tahsil Murree during Sikh rule.

Before Sikh rule that part of the district now known as tahsíl Murree, and also a portion of Kahuta were altogether independent, acknowledging the supremacy of the Gakhars and through them of the Mughal Emperors, only by occasional presents of hawks or mules. This tahsil was formerly composed of *ilákás* Phulgrán, Dewal, Charihan, Kotli and Karor. It was not till the renowned Hari Singh's second campaign that these mountaineers were forced to submit to the Sikh power. Milka Singh had indeed granted a *jágír* to the Ghakars of Mandla and Chaneri of 107 hill villages, but the hill men scarcely acknowledged them, and the grant was more nominal than real.

Hari Singh built forts at different places, of which the principal were Kotli and Karor. He resumed the *jágírs*, and from that time to annexation the people of these hills were made to feel the yoke of a stern tyranny exercised by the grasping Mahárájá Guláb Singh of Kashmír, to whom this territory and that lower down the Jhelum river, forming the tahsíl of Kahuta and part of Gujar Khan, were assigned in *jágírs*, probably about the year 1831 A.D. It is said that whenever the zamíndárs were recusant he used to let loose the Dográs among them, and rewarded the latter by a poll rate for hillmen of at first one rupee, then eight annas, and finally four annas, and that he thus decimated the population. Other tales are told of his cruelty in these and other *ilákás*, which, if true only in part, would class him with the Neros and Calígulas of the human race. A general door tax he levied was so unpopular that the people rebelled and were visited with severe retribution. He also played one tribe against the other. Sirdár Zabardast Khan Satti, of Narar, and Mazulla Khan, father of Syda Khan, of Bamartrar, were for some time his employés. Their families are still in the enjoyment of *jágírs*. No trustworthy statistics have been obtained of any of the *ilákás* composing this tahsíl relating to periods antecedent to British rule, with the exception of Phulgírán of which the Sikh *jama* from A.D. 1840 to 1846 appears to have been Rs. 7,749. It was reduced in 1847 by the Regency Administration to Rs. 6,022.

Fiscal history of tahsil Kahuta during Sikh rule.

The tahsíl of Kahuta is composed of five fiscal divisions or *ilákás*—namely, Jasgám, Narai, Kahru, Kahuta and Kallar. The fiscal history of Jasgám and Narai during Sikh rule is precisely similar to that of the Murree Tahsíl. For some years the collections were made by a man locally celebrated for his sagacity, Nasru Khan of the Narar branch of Sattís, who died at a very

CAHP. III, C.

Land Revenue.

Fiscal history of tahsil Kahuta during Sikh rule.

advanced age. Cash assessments are said to have been made in 1840, and to have lasted until 1846, but no reliable details have been obtained. These *ilákás* appear to have been given in *jágír* to Mahárája Guláb Singh in A.D. 1831. The assessments of *ilákás* Kahru and Kahuta, which also formed part of Mahárája Guláb Singh's *jágír*, have been obtained from various sources. The fiscal history of these subdivisions is the same as that of the foregoing *ilákás*. The assessments from 1840 to 1846 were:— Iláka Kahru, Rs. 21,036 ; Kahuta, Rs. 12,234.

The *iláka* of Kallar was managed by different *kárdárs* from A.D. 1804 to 1832 under the direct orders of Mahárája Ranjít Singh, and the rent was taken by appraisement of crop. In 1833 cash assessments were introduced. Details are only forthcoming since 1838. The *iláka* passed into the hands of Mahárája Guláb Singh in 1843, and was managed on the same principles as the other portions of his *jágír*, the only difference being that the *iláka* was in the plains and could not offer the same resistance to the Mahárája as the *ilákás* in the hills. The statement in the margin shows the assessment statistics collected through various sources.

Iláks.	From 1838 to 1844.	From 1845 to 1844.	From 1845 to 1846.	Regency, 1847.
Kallar	35,018	62,459	55,482	45,998

Gujar Khan tahsíl.

The Gujar Khan tahsíl contains the *ilákás* of Nuráli, Bewal, Devi, Guliána, and Sukho. The fiscal history of the two former, Nuráli and Bewal, is the same as that of Kallar. Details of the assessments have been collected from the year 1838, and are shown in the margin. The circumstances and details of former assessments of *iláká* Devi, formerly part of the Ráwalpindi jurisdiction, have been shown in the notice and tabular statement of that tahsíl. The two remaining *ilákás* of this tahsíl, Guliána and Sukho, formed part of the *jágír* of the different members of the Atáriwála family, of whom it is sufficient to name Sirdár Chattar Singh. Prior to 1833 in the former, and 1838 in the latter, the collections were by appraisements of crop;

Iláka.	From 1838 to 1842.	From 1843 to 1844.	From 1845 to 1846	1847.
Nurali	42,510	46,855	62,065	44,462
Dewal	30,707	30,707	34,157	33,986

Iláka.	1838.	1839-40.	1841-47.
Guliána	41,897	63,217	60,227

CHAP. III, C.

Land Revenue.

Iláká.	From 1838 to 1845.	1846.	1847.
Sukho	49,030	44,698	42,730

since then by cash leases. The particulars of the latter are given in the margin.

Fiscal history since annexation.

The last of the leases of the Sikh administration, described in the preceding pages—namely, those of the Regency established during the minority of Mahárája Dalíp Singh—lasted until 1848, and were followed by those framed by British officers, partly during the period of Regency, and partly subsequent to the annexation of the Punjab to the British dominions. Those parts of the district now known as tahsíl Murree and the northern portion of tahsíl Kahuta were assessed by Major Abbott, the Deputy Commissioner of Hazára, to which district this tract belonged. The cruelties and exactions of Mahárája Guláb Singh were then fresh in memory, and Major Abbott appeared among the Sattís, Dhúnds, Khetwáls, Gharwáls, and Gakhars, as a deliverer from a cruel bondage. He reduced the assessment in most villages by a third, and, as a natural consequence, pre-disposed the people towards our rule.

Far different was the effect of the assessment on the rest of the district. It was framed by the late General (then Lieutenant) John Nicholson, Assistant to the Board of Regency, and subsequently Deputy Commissioner of this district. He increased on the Sikh assessments, and even in some cases on those of Diwán Kishenkor, and others of the most exacting Sikh officials. His *jamás* were considered very oppressive. He had framed them entirely on the estimates and papers of by-gone Sikh agents, whose collections are now known to have been far beyond the amount the agricultural community could bear in a term of years. Other circumstances concurred to render these leases oppressive. The people were deeply in debt; they had not recovered from the destructive visitation of the locusts; and far more serious than even these causes, was one which made the load intolerable. An unparalleled fall of prices took place at the period of annexation, for which it is difficult to account. Although large cantonments were formed, and the consumption of grain must have been greater than during Sikh rule, yet the amount of grain stored was probably immense, and a certain confidence may have taken possession of the trading classes, tending to make them disgorge their hoards. All these causes combined plunged the agricultural body into great distress. Added to this was the absence of employment, caused by the disbandment and discharge of the Sikh myrmidons, and the want of ready money. It is not surprising that, under these circumstances, a deep spirit of discontent began to show itself among the population of these and other *ilákás*. For some time after annexation successive members of the Board of Administration were mobbed, and the whole agricultural popu-

CHAP. III. C.

Land Revenue.

lation began to agitate seriously for a reduction of assessment. But the signs of the times were not immediately understood. Many old Sikh officials had been retained in office, who represented that it was a clamour raised merely to test the powers of endurance of a new *regimé*, and the stipulated period of lease was allowed to elapse before relief was afforded.

The summary settlements.

When, therefore, the first summary settlement was made by Mr. Carnac, Deputy Commissioner of the district, it was under an outer pressure, which, however disinclined he was at first to yield to clamour, could result in nothing else than large reductions. His revision of 1851 was again remodelled in 1853 on the basis of a measurement (though without a field map), and these assessments lasted, together with those of Major Abbott, renewed in 1854 by Lieutenant Pearse of the Madras Army, and Assistant Commissioner at Murree, until at various times, in different localities, they were superseded by those of the detailed settlement by Colonel Cracroft. In praise of these assessments it is enough to say that, in conjunction with other causes, they raised the district from a state of great depression to one of prosperity unknown before ; and that, though it was found necessary still further to reduce the revenue, in order to leave reasonable profits and give hope of its standing the test of fair pressure in unfavourable years and bad seasons, yet Colonel Cracroft's operations did not result, as far as the assessment goes, in much beyond its more equable and uniform adjustment on villages and population, and a reduction on the whole of $5\frac{1}{2}$ per cent.

The foregoing sketch of the fiscal history of the district previous to the regular settlement, affords all the information it has been found possible to collect. The main fact to be drawn from it bearing on the subject of revision of assessement is the highest revenue ever paid in one year by every village and *iláká*. As a general rule the Sikh *jamás* and those of the Regency which followed them in the year preceding the annexation of the Province, were framed with more or less accuracy on the collections made by appraisement of the standing crop. They were not intended to leave any profit to the proprietary body ; at the same time it is impossible to say that they did not. Indeed, it is known that in many cases they did, for not only were the rates very conflicting but considerations of expediency often tended to cause a reduction, irrespective of the value of the crop. The general circumstances and statistics of each village, however, ordinarily afforded sufficient data to enable the Settlement Officer to judge with tolerable accuracy whether the profit was large or small : it was generally found to have been the latter ; and accordingly it can be safely stated, that compared with this highest revenue, the present assessment leaves a fair profit to the proprietary body. There are of course, some exceptions to this rule, for instance in the hill tracts of Murree and Kahuta, where, for political and other reasons, the

CHAP. III, C.

Land Revenue.

The summary settlements.

revenue was not exacted on the same terms as in the other sub-divisions of the district, and the profits are much larger and beyond our calculation. The Sikh *jámás* must be accepted with caution. Extraordinary pains have been taken to obtain correct information and it is believed with very fair results. Still it is one thing to impose a revenue, and another to realize it. We know nothing of the unrealized balances of these *jamás*. On the other hand the Sikhs very often took considerably more than the demand they had assessed, to say nothing of fines imposed.

First regular settlement.

The first regular settlement was begun in 1855 by Major Cracroft, who was both Deputy Commissioner and Settlement Officer. The final report was submitted in 1864, and sanction to the assessements was given by the Government of India on 31st October 1866. Major Cracroft was assisted by various European assistants. He was fortunate in his Extra Assistants, and the names of Munshi Amin Chand and Munshi Hukm Chand are still treasured in the memories of the people. The subordinate staff consisted at first of a crowd of Hindustani Amins. Then came the mutiny. Settlement work was almost suspended, and Hindustanis were under a cloud. When tranquillity was restored the work was entrusted to the patwaris, only a few of the munsarims and supervisors being Hindustanis.

Practically everything had to be done without reference to previous settlements. Sikh records were deficient; the measurements of summary settlements incorrect. There was no field map for any village and no revenue survey had been made. At the very outset village boundaries had to be demarcated. There was no such thing known as demarcation of boundaries during Sikh rule. Villages existed on paper as paying so much revenue. The Sikhs always endeavoured to divide large villages into small ones, in order to obtain more revenue.

Munshi Amin Chand was in charge of measurements. Complete remeasurements were carried out except in tahsils Ráwalpindi and Murree. Recognizances were taken from the owners binding them under penalties to show all their lands. Maps were made for all villages except for those of Murree Tahsil and part of Kahuta Tahsil. Soils were classified as irrigated or unirrigated. The irrigated soils were chahi awwal, chahi doyum, and abi. Unirrigated soils were classed as (1) lipara, (2) las, mal, seo, bohan, manja, &c., (3) maira I and (4) maira II.

The constituent parts of the record of rights were—

(1) Field map.

(2) Khasra Paimash or Field Register.

(3) Genealogical tree of proprietary bodies.

(4) Statements of absentees.

CHAP. III. C.

Land Revenue.

First regular Settlement.

(5) Muntakhib Khatoni or abstract of holdings. This document was prepared separately except in Murree and a few villages in Gujar Khan where it was amalgamated with the Field Register.

(6) Statement of Lakhiraj lands.

(7) Statement of wells.

(8) The engagement (Darkhwast) for the revenue.

(9) The khewat or abstract of revenue and cesses paid by each proprietor.

(10) *Wajib-ul-arz.*

(11) Statement of mortgages and sales.

(12) Iqrarnama Malguzari.

The Thakbast and Haddbast Files, or records of demarcation of boundaries, were kept separate.

For assessment purposes the circles adopted were the *ilákás* or old fiscal sub-divisions of the Sikhs. No produce estimates were framed. Soil rates were worked out by consulting chaudris and prominent headmen, and by noting the rates imposed by the people themselves in the internal distribution of the demand. These rates were called standard rates. From them the total assessment was worked out for each *iláká.* They were then applied to the areas of different soils in each village and the rate assessment worked out. These village and circle totals were then checked and revised after consideration of the circumstances of each village, the class of proprietors and tenures, the working of former assessments, the increase of cultivation, statistics of population and cattle and other matters which seemed to affect the village's revenue-paying capacity. Assessment was thus done by circles and the proposals for each circle were submitted separately to the Commissioner for his sanction as soon as they were ready.

The results of the Regular Settlement for each assessment circle or ilaka, statistics of incidence of the demand per acre and comparisons with previous highest demand and the demand of Summary Settlement are given in the following table :—

Tahsil.	Ilaka.	Highest revenue ever paid in one year. Year	Highest revenue ever paid in one year. Revenue.	Summary Settlement Demand for year preceding Regular Settlement.	Demand assessed at Regular Settlement.	Rate per acre cultivated.	Rate per total area manured.	Increase on Summary Settlement Demand. Rupees.	Increase on Summary Settlement Demand. Percentage.	Decrease on Summary Settlement Demand. Rupees.	Decrease on Summary Settlement Demand. Percentage.
			Rs.	Rs.	Rs.	Rs. a. p.	Rs. a. p.				
Rawalpindi.	Arrah ...	1845	18,022	14,057	12,335	1 2 11	0 8 11	...	...	1,722	12·25
	Banda ...	1848	22,739	17,620	15,276	...	...	...	...	2,344	13
	Takhtpari	...	29,042	23,379	19,754	...	...	...	...	3,625	15
	Ráwalpindi	1840	40,905	33,324	31,065	1 2 5	0 8 1	...	...	2,259	6·75
	Saidpur ...	1846	15,932	12,745	10,848	1 3 5	0 5 0	...	...	1,897	15
	Sangjani ...	1846	25,100	21,241	19,946	0 14 1	0 3 11	...	...	1,295	6
	Kuri ...	1848	28,334	25,133	22,175	0 15 10	0 5 8	...	...	2,958	11·75
	Mughál ...	1846	11,716	8,854	7,624	1 2 3	0 6 9	...	...	1,230	14
	Kharora ...	...	15,877	13,988	11,995	0 11 2	0 3 6	...	...	1,993	14·25
	Phulgran ..	1841	6,752	4,551	4,301	0 13 4	0 2 1	...	...	250	5·5
	Tahsíl ...	...	...	1,74,892	1,55,319	1 1 5	0 5 4	...	...	1,953	11·2
Gujar Khan.	Narali ...	1845	75,040	36,073	33,730	1 2 5	0 11 5	...	...	2,343	6·5
	Bewál ...	1847	34,937	25,698	25,010	1 4 8	0 9 7	...	...	688	2·75
	Devi .	1842	54,393	46,589	43,166	1 0 8	0 8 3	...	...	3,423	7·33
	Guliána ...	1845	65,602	44,884	39,962	1 3 6	0 9 1	...	..	4,922	11
	Sakho ...	1840	53,316	37,404	34,017	1 1 2	0 8 6	...	...	3,387	9
	Tahsíl ...	...	...	1,89,648	1,75,885	1 2 3	0 9 2	...	...	14,763	7·75
Kahuta.	Jaskam ...	1858	1,953	1,950	2,032	0 13 5	0 12 0	82	4·2	...	...
	Nurai ...	1659	1,773	1,763	1,845	0 13 10	0 11 9	82	4·75	...	...
	Kahru ...	1840	21,054	13,326	13,204	1 0 9	0 5 6	...	...	122	1
	Kahuta ...	1840	17,421	11,276	11,980	0 15 4	0 4 6	70·4	6·25	...	...
	Kallar ...	1844	63,332	46,545	43,710	1 6 7	0 9 9	...	...	2,835	6
	Tahsíl ...	...	...	74,860	72,771	1 3 3	0 7 4	...	...	2,089	3·8
Murree.	Dewal ...	...	...	2,058	2,323	0 8 11	0 8 0	265	13	..	...
	Charihan ...	...	..	1,349	1,365	0 8 11	0 7 2	16	12	...	...
	Kotli ...	...	...	2,272	2,249	0 10 9	0 8 9	...	...	23	1
	Kahror ...	...	...	2,132	2,049	0 12 10	0 7 4	...	...	83	4
	Tahsíl ...	...	...	7,811	7,986	0 10 3	0 7 10	170	2	...	...
	District ...	...	...	4,47,211	4,11,961	1 1 7	0 6 11	...	...	85,250	7·9

CHAP. III, C.

Land Revenue.

First regular settlement.

The settlement was sanctioned for ten years. The term of settlement expired in 1874, but re-asessment was not commenced until 1885. The assessments worked excellently. The demand, except in a very few cases, was paid without difficulty. The moderateness and equal distribution of the assessments contributed greatly to the increase in prosperity experienced by the district after they came into force.

Revised Settlement.

The Revised or Second Regular Settlement began in 1880. Mr. Steedman was appointed Settlement Officer in January 1881, and on his retirement owing to ill health, Mr. Robertson was appointed in April 1884. The settlement comprised both a re-assessment of the revenue and a revision of the record of rights. At the same time a forest settlement of the Murree and Kahúta hills was made. At the first Regular Settlement village boundaries had been laid down for the first time, and field-maps and boundary maps had been made, but the methods were very rough and primitive. The cultivated lands had been very carefully measured, but no attempt had been made to measure the waste, a rough guess at the area of which was usually entered in the settlement papers, the land being shewn as unmeasured ("bila karm kan"). This caused a great deal of most troublesome litigation. Land not held in separate proprietary right by any of the owners had been entered as common village waste, and the superfluous waste lands entered as belonging to Government. The questions connected with these waste lands had never been finally decided. At second Regular Settlement the superfluous waste was included in Reserved or Protected Demarcated Forests, and the other mistakes of Regular Settlement were avoided by combining measurements and attestations and making the Patwaris do the great bulk of it themselves.

In Murree and the Kahúta hill tracts no (Thakbast) boundary maps were prepared. The boundaries were put in on the village map as accurately as could be done by the aid of the sighting rod, but the measurement of the cultivation was carried out with as complete accuracy as in any part of the district.

Measurements were done by triangulation. Maps were prepared for the first time for Murree Tahsíl and several villages in Gujar Khan. Each village now had its field-map.

The chief foundation on which the re-assessment rested was the increase in the area of cultivation since Regular Settlement. Every Tahsíl shewed an immense increase. In Gujar Khan the increase was 33 per cent.; in Rawalpindi 51·6 per cent.; in Kahúta 44 per cent.; and in Murree it reached the enormous figure of 138 per cent. Prices since last assessment had fluctuated between wide extremes, but during re-assessment had been greatly depressed by a series of good harvests. The general rise in prices was small.

The old *ilakas* which had been adopted by Colonel Cracroft as assessment circles were abandoned, and new circles framed. The whole of Gujar Khan Tahsíl was made one circle. Similarly Murree Tahsíl was not divided into assessment circles. The Pahar, Kahru and Kallar Kahúta circles comprised the Kahúta Tahsíl, and Ráwalpindi Tahsíl was divided into the Kandhi Soan circle, including the whole of the northern portion of the Tahsíl and the submontane tracts, the east of the Tahsíl, and that portion of the south which lies in the Soan valley or south of it, and the Kharora circle, which formed the western portion of the district.

Colonel Cracroft's standard rates were not repeated. Produce estimates were framed for Gujar Khan Tahsil only. The soil rates sanctioned were as follows :—

Soils.	Gujar Khan.	Kandhi Soan.	Kharora.	Kallar Kahuta.	Kahru.	Kahuta Pahar.	Murree.
Chahi ...	4 0 0	5 0 0	4 0 0	5 0 0	4 0 0	...	...
Nahri ...	...	3 0 0 2 0 0	} 3 0 0	...	...	...	...
Abi ..	...	...	...	5 0 0	4 0 0	1 8 0	1 0 0
Sailáb ...	1 5 0	1 8 0	1 8 0	1 8 0	...	...	...
Lipára ...	2 0 0	2 0 0	2 0 0	2 0 0	2 0 0	1 4 0	1 0 0
Las ...	1 5 0	1 8 0	1 8 0	1 8 0	1 8 0	1 8 0	...
Maira ...	1 0 0	0 15 0	0 15 0	1 0 0	0 12 0	0 6 0	0 6 0
Rakar ...	0 6 0	0 6 0	0 6 0	0 6 0	6 0 0	0 3 0	0 3 0

But they were closely followed only in Gujar Khan and Ráwalpindi Tahsils. In Murree the framing of rates at all was almost a farce. They had to be practically ignored in the village assessments and were set on one side by the Financial Commissioner. In Kahúta they would have raised the *jama* 65 per cent., but the Financial Commissioner refused to deal seriously with them, and directed the Settlement Officer to limit his demand to an increase of 40 per cent. Only 45 per cent. of all the villages in the district were assessed within 10 per cent. of the soil rates. The results of the revised Settlement are given below :—

Tahsíls.	Area cultivated at first Regular Settlement.	Area cultivated at Revised Settlemen.	Increase per cent. on cultivated area.	Jama at last Settlement.	Incidence of revenue per acre cultivated.	Jama at Revised Settlement.	Incidence of revenue per acre cultivated.	Increase per cent. in jama.
	Acres	Acres.		Rs.	Rs. a. p.	Rs.	Rs. a. p.	
Ráwalpindi	146,093	2,21,434	52	1,55,150	1 1 0	2,14,850	0 15 1	38
Kahúta	61,015	87,843	44	73,759	1 3 4	95,345	1 1 4	29
Murree	12,502	29,783	138	8,601	0 11 0	13,492	0 7 3	57
Gujar Khan	1,55,417	2,06,770	33	1,76,560	1 2 2	2,22,420	1 1 3	26
Total District ...	3,75,027	5,45,830	46	4,14,070	1 1 8	5,46,107	1 0 0	32

CHAP. III, C.
Land Revenue.
Revised Settlement.

The average of holdings in the various Tahsils is given below in acres :—

	Ráwalpindi.	Gujar Khan.	Kahúta.	Murree.
Revised Settlement ...	4·9	6·5	3·3	2

The land revenue and cesses were payable in the following instalments :—

Kharíf ... ... 15th January.
Rabi ... ... 15th July.

These dates were uniform throughout the district, with the exception of the Murree Tahsíl and the Pahár circle of Tahsíl Kahúta where the dates of the instalments were :—

Kharíf ... ... 1st December.
Rabi ... ... 1st August.

The cesses imposed at the revised settlement were as follows :—

	Rs.	a.	p.
Local rate	8	5	4
Lambardári pachotra	5	0	0
School	1	0	0
Road	1	0	0
Post	0	8	0

These cesses stood uniform for the whole district, excepting the patwári cess, which varied in the different tahsíls as follows :—

In Gujar Khan ... ... $4\frac{11}{16}$ per cent.
In Ráwalpindi ... ... 5 do.
In all other tahsíls ... ... $6\frac{1}{4}$ do.

The total amount of these cesses was collected with the instalment of land revenue payable after the kharíf harvest.

The new assessment could not be regarded as otherwise than light, and the period of settlement was limited to 20 years. The revenue was always collected with ease save in bad years in Kahúta and Gujar Khan Tahsíls. Suspensions have never been large and remissions have been insignificant.

Third Regular Settlement.

The third Regular Settlement began in October 1902, and was conducted by Mr. A. J. W. Kitchin.

Merely revision of the measurements of Revised Settlement was aimed at, and re-measurements were necessary in only 28 villages. The *khasra paimash* of Regular or Revised Settlements was replaced by a field-book, and the Record of Rights took the form laid down in the Land Revenue Act of 1887.

The chief justifications for re-assessment were a general rise in prices of not less than 25 per cent. an extension of cultivation amounting to 9 per cent. in Ráwalpindi, 6 per cent. in Gujar Khan, 12 per cent. in Kahúta and 32 per cent. in Murree Tahsil, and the ease with which the previous demand had been paid.

The old assessment circles of Revised Settlement were retained, but when assessment had been completed the circles were revised and the following division made :—

Tahsil.	Circles of Revised Settlement.	New circles.
Gujar Khan	Gujar Khan	Khuddar. Pothwár. Jatlı.
Ráwalpindi	Kharora	Kharora
	Kandhi Soan	Kandhi Soan. Pothwár.
Kahúta	Pahár	Pahár.
	Kahru	Kahru.
	Kallar Kahúta	Pothwár. Kandhí.
Murree	Murree	Murree. Kotli.

The soil rates sanctioned were as follows :—

Soils.	Gujar Khan.	Kandhi Soan.	Kharora.	Kallar Kahúta.	Kahru.	Kahúta Pahár.	Murree.
Chahi ...	5 8 0	8 0 0	5 0 0	5 8 0	5 0 0	...	...
Nahri ...	...	2 6 0	...	...	...	...	...
Abi ...	...	5 0 0	5 0 0	4 0 0	4 0 0	0 12 0	0 12 0
Sailáb ...	1 2 0	1 4 0	0 12 0	1 3 0	0 13 0	...	...
Lipára ...	2 1 0	2 8 0	1 8 0	2 4 0	2 2 0	1 2 0	1 2 0
Las ...	1 2 0	1 4 0	0 12 0	1 3 0	0 13 0	0 6 0	...
Maira ...	1 2 0	1 4 0	0 12 0	1 3 0	0 13 0	0 6 0	0 6 0
Rakar ...	0 7 0	0 7 0	0 4 0	0 6 0	0 4 0	0 3 0	0 3

During re-measurements the land under the shade of road-side trees had been recorded in separate lists, the maximum allowance of 55 feet being given for each tree. In assessment these areas were excluded from the village area on which the

CHAP. III, C.
Land Revenue.
Third Regular settlement.

village assessment was worked out. Entire remission was given on unirrigated land and half remission on irrigated lands. The results of the settlement as compared with those of the Revised Settlement may be thus summarized :—

Tahsíl.	Assessment Circle.	Revised Settlement. Demand.	Revised Settlement. Incidence per acre of cultivation.	Assessment Circle.	3rd Regular Settlement. Demand.	3rd Regular Settlement. Incidence per acre of cultivation.	Percentage of increase of new and old demand.
		Rs.	Rs. a. p.		Rs.	Rs. a. p.	Rs.
Ráwalpindi ...	Kharora ...	35,398	0 10 2	Kharora ...	47,500	0 12 1	34
	Kandhi Soan	1,78,087	1 1 3	Kandhi Soan	1,58,850	1 5 11	40
				Pothwár ...	76,100	1 3 2	17
Gujar Khan ...	Gujar Khan...	2,22,342	1 1 2	Khaddar ...	7,880	0 15 10	2
				Pothwár ...	1,81,670	1 3 7	16
				Jatli ...	66,450	1 0 11	14
Kahúta ..	Pahár ...	4,590	0 11 3	Pahár ...	5,700	0 10 5	24
	Kahru ...	18,149	1 14 7	Kahru ...	20,500	0 14 4	13
	Kallar Kahúta	72,605	1 2 11	Pothwár ...	57,500	1 6 11	19
				Kandhi ...	28,800	1 1 4	19
Murree	Murree ...	13,473	0 7 3	Murree ...	16,290	0 10 7	10
				Kotli ...	8,210	0 9 0	49
Total District	...	5,44,644	0 15 11	...	6,75,450	1 2 0	24

Cesses amount to Rs. 13-5-4 as follows :—

	Rs.	a.	p.
Local Rate	8	5	4
Lambardari	5	0	0

The present demand is a full assessment in Gujar Khan Tahsil. In the Ráwalpindi Tahsil the assessment of the Kharora Circle is not heavy and represents only 59 per cent. of the half net assets. The demand for the Kandhi Soan Circle has been increased by 40 per cent., but the enormous influence of the Ráwalpindi town and cantonment and the large amount of miscellaneous profit are justifications additional to the rise in prices, the increase of cultivation and the ease with which the old demand was paid. Kahúta Tahsil is now fully assessed, but Murree Tahsil is still left seriously underassessed. An enhancement of 82 per cent. has been taken, but the assessment represents only 24 per cent. of the net and 5 per cent. of the gross produce from crops alone. Communications and markets are good, cultivation has enormously increased, and

CHAP III, C.

Land Revenue.

Third Regular Settlement.

the miscellaneous income from fruit (estimated at Rs. 29,123), shop sites and village waste is enormous, and many times the revenue demand. An assessment up to the full half net assessment rates would have been justified, and the increase was limited to 80 per cent. only because the revenue at stake was so small and a sudden enhancement of more than 80 per cent. not feasible. The new assessment runs from Kharif, 1906, and has been sanctioned for a term of 20 years except in Murree where the term of settlement has been limited to 10 years. With the exception of the Murree Brewery Estate and the Murree Civil Station, which pay their whole demand with the Rabi instalment, all villages pay their revenue in two equal half yearly instalments. The dates for payment are 15th January and 15th July for the Kharif and Rabi instalments respectively with the exception of Murree and the Pahár Circle of Kahúta in which the dates are 1st December and 1st August. Cesses are collected with the Kharif and Rabi instalments of land revenue in equal proportion.

Secure and insecure areas.

In obedience to the instructions of the Government of India in connection with famine preventive measures, and to regulate the granting of suspensions and remissions of revenue, all the villages of the district have been carefully classified according to their liability to, or immunity from, the vicissitudes of bad harvests. The only assessment circles classed as "insecure" are the "Jatli" Circle of Gujar Khan Tahsil and the Kharora Circle of Ráwalpindi Tahsil. In these circles the villages have been classified under four heads—

A. Secure, suspensions ordinarily never needed.

B. Suspensions ordinarily needed after a series of bad harvests.

C. Suspensions needed only after two bad harvests.

D. Villages insecure, suspensions needed after a single bad harvest.

For each village for each harvest a danger rate has been framed. When the incidence of the revenue instalment per acre of matured crop is higher than the danger rate there is *prima facie* a case for suspensions. Insecure villages number only 92. Those of class C are 77, and those of class D, 15 in number. The remaining 1,082 are secure.

It is necessary to give suspensions only after a series of bad harvests. But on the other hand revenue once suspended can be collected only slowly, for holdings are small, and after a series of bad harvests it is necessary to let the people have the first good crop to recover their food stocks. The Kharif is the cattle crop, and the Rabi is the people's crop, except where maize is sown. Suspensions are not necessary for a poor Kharif following a fair Rabi, where there is moisture for Rabi sowings. The largest proportion of the district is quite secure.

CHAP. III, C.

Land Revenue

Alluvion and diluvion.

Alluvion and diluvion work is very inconsiderable, and is confined to the Soan torrent in the Ráwalpindi Tahsil. Rules of assessment applicable to estates bordering on the Soan in Ráwalpindi Tahsil were sanctioned by Government in February 1907. Measurements for the purpose of ascertaining whether assessments should be remitted or imposed are made ordinarily every four years. When land assessed to revenue as cultivated is carried away or rendered unfit for cultivation the assessment is remitted. When land not assessed at settlement or of which the assessment has since been remitted becomes culturable owing to the action of the Soan torrent it is assessed to revenue according to quality. But no assessment is imposed on land which has not actually been cultivated.

Land revenue assignments.

The following statement gives a detail of all assignments of land revenue at present existing :—

Tahsil.	In perpetuity.		On condition of maintenance of institutions.		For life or lives.		For term of Settlement.		For road side gardens and groves.		Total value of grants.
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	
Ráwalpindi	34	10,681	16	3,318	19	1,691	4	83	1	16	15,789
Gujar Khan	3	420	5	148	12	968	4	23	1	10	1,569
Kahuta	46	5,337	5	167	17	1,563	2	9	...	...	7,076
Murree	8	511	...	...	7	464	...	...	...	...	975
Total	91	16,949	26	3,633	55	4,686	10	115	2	26	25,409

Of the assignments in perpetuity Sardar Gurdit Singh, Chachhi, great grandson of Sir Nihal Singh, Chachhi, K.C.S.I., enjoys a grant of Rs. 6,508 from the revenue of Ráwalpindi and five surrounding villages. The history of the growth of the grant and the services by which it was earned are given in Griffin's "Punjab Chief."

The Admal Gakkhars of Pharwala enjoy a perpetual jagir at present amounting to Rs. 2,532, a fourth share of the revenue of 31 villages in Tahsil Kahúta. The Sattis of Kamra have a jagir of Rs. 680 in five villages, and the Sattis of Hotla a jagir of Rs. 749. Both are survivals from Sikh times reinfroced by additions earned in mutiny and other troublous times.

The Dulal Janjuas of Kahúta have a grant of Rs. 869 for mutiny services. None of the other assignments are large. All perpetual grants are either survivals from Sikh times or rewards for services in the Multan compaign, the mutiny or more recent

troubles. They amount to 3·76 per cent. of the total revenue demand.

CHAP. III, C.

Land Revenue.

Land revenue assignments.

The assignments for the maintenance of institutions are all for the upkeep of *khangahs* and *dharmsalas*, and are nearly all in Ráwalpindi Tahsil. The only considerable assignments are Rs. 795 in three villages for the upkeep of the shrine of Shah Cheragh in Ráwalpindi City; Rs. 737 for the maintenance of the shrine of Shah Bari Latif in Nurpur Shahan; Rs. 472 the revenue of Rala, Tahsil Ráwalpindi, for the maintenance of the *dharmsala* of Bhai Abnasha Singh in Wazirabad; Rs. 357 for the *dharmsala* of Bhai Manna Singh in Ráwalpindi; Rs. 438 for the upkeep of the *dharmsala* of Bawa Mast Ram at Baradari near Golra.

The life-grants are for services either in the mutiny or in recent times. The largest grant, Rs. 600 in Mator, Tahsil Kahúta, to Subadar Major Zaman Ali Khan, Sardar Bahadur, was sanctioned in 1906. None are large.

Other assignments are insignificant. The total value of grants inclusive of *zaildár ináms*, is Rs. 34,624 or 5·15 per cent. of the total demand.

Section D.—Miscellaneous Revenue.

Excise.

Table XII in the statistical volume gives the net collections for foreign liquor, spirit made in British India, drugs, opium, the incidence per 10,000 of the population and the number of shops. The real factor in the excise administration of the district is the head-quarters station, including both City and Cantonment. These furnish at least 90 per cent. of the total income. The rural population, which is chiefly Muhammadan, is not accustomed to the use of intoxicants, though Muhammadans of both the rural and urban populations, who will not touch liquor, are largely addicted to opium in moderation. The inhabitants of Ráwalpindi are particularly abstemious as a body. The incidences of consumption of the various exciseable articles in the year 1906-07 are given in the following statement:—

Name of exciseable articles.	Annual consumption per head of population.	Cost price including Tax.	Incidence of taxation per head.
		Rs. a. p.	Rs. a. p.
Opium	2½ mashas	0 1 3	0 0 7
Charas	1⅜ "	0 0 7	0 0 6
Country Spirit	⅛th Bottle	0 4 4	0 3 8
Imported Spirit	$1\frac{1}{10}$ "	1 3 4	0 1 0

CHAP. III, D.

Miscellaneous Revenue.

Excise.

There is no Government distillery in the district. The only spirit distilled in the district is made by the Murree Brewery Company at Ráwalpindi and Gora Galli. Most of the exciseable articles manufactured in the district are exported for consumption in other districts. The Murree Brewery supplies all the north-west portions of the province. The chief outside suppliers are the Sujanpur and Rosa distilleries. The Supply Department is by far the largest consumer.

The opium consumed is chiefly Malwa, Bengal and Punjab. Hill opium has almost disappeared. The dearest is sold at two tolas per rupee, the cheapest (hill opium) at four tolas per rupee. Malwa opium is preferred. *Charas* comes from Kashmir, but is often stopped by snow. *Bhang* grows wild in the district. There is no cultivation of the opium poppy.

There is very little change in popular taste. The consumption by natives of imported spirit is on the increase. *Bhang* is increasing in favour, and *charas* declining. Plague has had some effect on the amount of spirit consumed. Intoxicants are popularly supposed to be both prophylactic and curative for plague. Cocaine is used only for medicinal purposes. Serious offences are very few. The opinion of successive district officers has been that illicit distillation is unknown. The amount of sugarcane grown in the district is infinitesimally small. It is all sold as a sweetmeat in Ráwalpindi City. Yet the Excise Commission suggested that illicit liquor was distilled for most marriages in the district.

Smuggling is extinct as regards liquors. There is no place whence it can be smuggled now that all Government stills have been closed. In 1904 and again in 1906 special detectives were deputed for the investigation of smuggling of opium, but no cases were discovered. There may be a little smuggling of *bhang* and opium from Poonch and elsewhere. Illicit dealing in liquor and other exciseable articles is probably common. On no other assumption does it appear possible for retail vendors to make a reasonable profit.

The constitution of the Attock District and the consequent loss of three tahsils from this district made practically no change in the excise revenue, which varies between $4\frac{1}{2}$ and 5 lakhs of rupees each year.

Stamps.

The revenue from stamps has decreased in recent years from the same causes which affected the volume of litigation and of registration business. The cancellation of receipt stamps is an additional reason. Vendors number 133. Twelve Branch Postmasters (Basali, Jatli, Jandryar, Mandra, Kotli, Dodocha, Saraikala, Kauntrila, Harnal, Karor, Sangiani, Kohala) are

CHAP. III, D.

Miscellaneous Revenue.

Income-Tax.

Ráwalpindi City and Cantonment and Murree sanitarium are the chief sources of income tax revenue. The agricultural portions of the district contribute little, and the assessees are petty. In 1907, when more attention was paid to the assessment of these outlying tracts, Gujar Khan Tahsil paid 4 per cent. of the total assessment through 92 assessees, and Kahúta 2 per cent. through 44 assessees. The incidence on each assessee was in the both tahsils 23 rupees.

Ráwalpindi and Murree including the Murree Brewery Company accounted for 94 per cent. of the assessment and 81 per cent. of the assessees.

The Cantonment gives the district income-tax administration its distinctive character. Assessees are bankers and money-lenders, contractors, dealers in provisions and piece-goods, salaried officials of companies, and owners of house property. European assessees are a considerable body. 75 per cent of the assessees pay on incomes of between Rs. 1,000 and Rs. 2,000, and 20 per cent. on incomes between Rs. 2,000 and Rs. 10,000. The former pay 25 per cent. of the total assessment and the latter about 30 per cent. The big assessees are contractors, money-lenders, company officials and house-owners. The largest assessee is the Murree Brewery Company which pays Rs. 14,000 on the basis of its profits. The incidence of the tax for each assessee varies greatly. In 1906-07 it was Rs. 74.

Assessments are made for Ráwalpindi and Murree usually in April. Departmental accounts are closed on the 31st March, and only after that date are the statistics available for the assessment of contractors' income. In April, too, shop-keepers and others go up to Murree, and assessment is practicable only when the Murree bazaar is inhabited.

Realization of the tax is a matter of some difficulty. European assessees are often ignorant of the law, and natives, from disinclination to pay and from the desire to gain interest on the payments to be made, are as dilatory in paying up as elsewhere. The final demand in 1906-07 was Rs. 52,396 from 708 assessees.

Section E.—Local and Municipal Government.

District Board.

The District Board is constituted under Act XX of 1883. There are 50 members, of whom 8 are members *ex-officio*, and 42 nominated. There are no elected members. The Deputy Commissioner is President. There are no Local Boards, nor is their institution to be recommended. The District Board itself takes its colour from the democratic nature of tribal organization in the district. The income of the District Board in 1906-07 amounted to Rs. 1,09,742, the chief source being the local rate (Rs. 8-5-4

CHAP. III E.

Local and Municpal Government

District Board.

per cent. on the Land Revenue) of which ⅘ths was credited to the District Fund. Other important items of receipt were :—

	Rs.
School fees	6,363
Fees from Horse Fair	4,111
Sale of road-side trees	3,419
Dak Bungalow fees	3,100
Fines on stray cattle	1,550
Tolls on ferries	3,151

The incidence of taxation per head of population was annas 3 and pies 2.

The expenditure in 1906-07 amounted to Rs. 1,20,456 as detailed in the margin. The educational and medical institutions on which the expenditure was incurred are noticed in succeeding Sections. A small establishment is entertained at tahsil head-quarters for sanitary purposes and some attempts made at conservancy arrangements in villages. But the expenditure is small and the result insignificant. For the encouragement of horse-breeding the Board keeps 6 Arab stallions stationed at Gujar Khan, 1 at Kahúta, 1 at Ráwalpindi, 1 at Sangjani, 1 at Rewat and 1 at Banda Road-side arboricultural operations are another sphere of District Board usefulness. Colonel Cracroft who made the first Regular Settlement of the district, has left behind him many beautiful rows of road-side trees, but in more recent years arboriculture has been attended with less success. A five years programme of operations was drawn up in 1904-05 providing for tree-planting in the vicinity of the head-quarters of tahsils, but no efforts were made by the Tahsildars. The matter since 1906 has received more attention, and a fresh scheme has been worked out.

	Rs.
Office establishment	3,975
Education	41,994
Medical	10,521
Public Works charges	51,441
Provincial contributions ...	1,233
Miscellaneous	11,292

There are two gardens, twelve cattle pounds, ten ferries and four dák bungalows under the management of the Board. The gardens, which are at Chattar and Gujar Khan, were transferred to the Board under the orders of Government in March on a lease expiring on 31st March 1907. Proposals have been made for renewal of the leases, subject to the payment of a contribution fixed by Government. The ferries are all on the Jhelum River. A list has been given at page 82. They were transferred by Government to the management of the District Board in 1899 on condition of an annual payment of Rs. 1,500 per annum to the Provincial Revenues. Half of the income from the ferries is paid to the Kashmir Durbar. The ferries are worked by contractors to whom leases are sold annually by public auction. The prices

CHAP. III, E.

Local and Municipal Government

District Board.

realised in 1906 as compared with averages of the previous five years are given below :—

Ferry.	Five years average 1901—05.	1906.07.
	Rs.	Rs.
Khadar ...	390	336
Serri ...	99	89
Melot ...	501	378
Rám Pattan ...	101	111
Lachman ...	573	576
Owen ...	370	334
Sálgráon ...	425	532
Dúngalli ...	200	219
Hill ...	365	403
Baghám ...	160	211
Total ...	3,184	3,239

Ráwalpindi Municipality.

Ráwalpindi Municipal Committee is of the second class and was constituted in its present form by Punjab Government Notification No. 100, dated 10th February 1886. In accordance with the proceedings of Government No. 40972, dated 10th November 1905, it belongs for octroi purposes to class A, the Municipality being a centre of trade, and situate on trade routes. The election rules provide that 4 members shall be members *ex-officio*, namely, the Deputy Commissioner, Civil Surgeon, Cantonment Magistrate and Tahsildar of Ráwalpindi; 3 members shall be nominated, and 14 members elected. The Deputy Commissioner is *ex-officio* the President of the Committee.

The boundaries of the municipality were fixed by Punjab Government Notification No. 100, dated 10th February 1896, and have been since amended by the marginally noted notifications.

No. 820, dated 1st November 1888.
No. 48, dated 14th January 1889.
No. 523, dated 22nd June 1891.
No. 1106, dated 19th December 1891.
No. 470, dated 16th September 1892.
No. 189, dated 5th May 1893.
No. 275, dated 22nd June 1893.

For election and administrative purposes the municipal area is divided into 14 wards. The population within municipal limits was found at last census to be 87,688, and the estimate of dependent village population is 25 per cent.

Rules of

The Committee works largely through Sub-Committees. The standing Sub-Committees are Octroi, Education and Library, called Financial Sub-Committees; Garden and Public Works, called General Works Sub-Committees, and the Sanitary Sub-Committee.

Rules made by the Committee regulating its own procedure were published in the *Punjab Gazette* Notification No. 681, dated

CHAP. III, E.

Local and Municipal Government

Ruules of business.

22nd August 1890. They provide, among other things, for the appointment of one Vice-President, and the above-mentioned Sub-Committees.

Municipal activity extends to the control of building within municipal limits, the registration of births and deaths (*Punjab Gazette* Notification No. 947, dated 21st November 1890), the control of *serais*, slaughter-houses and markets, supervision over burial and burning grounds, licensing and proper management of hackney carriages plying for hire (*Punjab Gazette* Notification No. 563, dated 8th June 1891), the regulation of vaccine operations (*Punjab Gazette* Notification No. 668, dated 3rd April 1897), and the registration and supervision of dangerous or offensive trades. There is also a Municipal Library open to the public. The Municipal Secretary and the Conservancy Darogha and Naib-Darogha have certain powers of Police Officer within municipal limits.

There are no taxes other than octroi, which is collected by the Committee in both Municipal and Cantonment limits. In 1906-07 octroi yielded Rs. 2,33,757, or 73 per cent. of the total income.

The chief articles on which octroi is paid are grain, *ghee*, sugar, refined and unrefined, oil, oilseeds, animals for slaughter, tobacco, cloth, leather and metals.

The octroi on grain varies very much with the quality of the harvest. In a good season importation is less and the octroi suffers The increase in exportation does not fully compensate, though Ráwalpindi is a centre for distribution of wheat and other grains to other parts of the Province. Most of the importation is for consumption in cantonments and covers articles of all kinds. A considerable portion of the trade between Kashmir and Ladakh and the Punjab passes through Ráwalpindi and swells the volume of imports and exports. This trade consists chiefly of *charas*, raw silk, iron, tea, fruits, hides, *ghee*, piece-goods, gold, silver, brass, copper and petroleum. The value of the imports and exports in 1906-07 is given in the margin:—

		Rs.
Imports	From Kashmir	62,95,915
	From Ladakh	35,63,281
	Total ..	98,59,196
Exports	To Kashmir	32,73,636
	To Ladakh	1,84,250
	Total ...	34,57,886

There are two bonded warehouses. Refunds are paid chiefly on food, fuel, lighting and building materials and cloth.

The incidence of octroi in 1906 was Rs. 3 per head of population. Miscellaneous income, in general a comparatively small item, in 1906-07 amounted to Rs. 88,106. The chief sources of income are fees from educational institutions, sale of street sweepings, rents and miscellaneous fees, especially water and license fees.

CHAP. III, E.

Local and Municipal Government

Rules of business.

The chief items of expenditure in 1906-07 were administration and collection charges Rs. 29,441 ; schools Rs. 12,129 ; hospitals Rs. 30,814 ; Police Rs. 14,049 ; conservancy Rs. 28,555.

The Municipality, with the assistance of the Public Works Department, have a complete drainage scheme on hand at present. The estimated cost is Rs. 1,29,167. Drainage, which at present falls by innumerable outlets into the Leh close by the City, and pollutes those parts of the stream in which the City population bathes, will be led into the stream at some distance below the City, and all drainage channels will be given a due amount of fall. The city water supply comes from a number of wells at Ráwal. It is led towards the City in pipes, from which, a few miles out, the Cantonment supply is drawn off and carried by a separate system to reservoirs in the Topi Rakh (Ráwalpindi Park). From this vantage-ground the Cantonment supply is distributed.

Murree Municipality.

The Municipality of Murree, which was first constituted in 1867 is of the first class, but has not yet been classified as A or B for octroi purposes. It consists of four members appointed by Government and eight elected members. The Deputy Commissioner is always President, and the Assistant Commissioner in charge of Murree, senior Vice-President. Of the elected members six represent the Station Ward and two the Bazar Ward. Four of the members for the Station Ward represent the house proprietors and two the visitors. The junior Vice-President is elected. The proportion of European and Native members varies. At present Europeans number nine and Natives three. The Municipality models itself upon Simla and works by Sub-Committees. The standing Sub-Committees are the Finance, Public Works, Bazaar and Sanitary Sub-Committees, but there are generally also Octroi, Forest and Education Sub-Committees. The Finance Sub-Committee audits the monthly accounts. The Forest Sub-Committee manages the Municipal Forest, and members in rotation mark trees to be felled. Formerly Sub-Committees rarely met. Papers were circulated to the members for expression of opinion. But this method was found dilatory and unsatisfactory. It is now the rule for Sub-Committees to meet for the transaction of business, but attendances are always meagre, and it has often happened that only an energetic Vice-President has put in an appearance.

The total income from taxation during the year 1906-07 was Rs. 41,715. The principal items are given in the margin.

	Rs.
Octroi	16,430
Tax on houses and lands	8,471
Water-rate	11,166
Conservancy	4,345

The Water-rate is 5¼ per cent. on the annual value of the house, and the house and land tax 5 per cent. The chief articles on which octroi is paid are articles of food and drink, articles for lighting, fuel and washing, building

CHAP. III, E.

Local and Municipal Government

Murree Municipality.

materials, and piece-goods. Two-thirteenths of the octroi income is paid over to the Cantonment authorities as their share, although the whole trouble of collection falls on the Municipal Committee. A good deal of the octroi originally levied is refunded. Refunds are claimed usually only at the end of the season when traders take back their stocks to the plains.

The Municipality is not guilty of the sin of taxing through-trade. The only through-trade is with Kashmir and Poonch, and is not taxed, as it passes by the cart road, and other routes which do not pass through municipal limits. There is accordingly no bonded warehouse.

The average population of the Municipality winter and summer is taken to be 5,045, although this is very much exceeded in the summer months. On this basis the incidence of taxation in 1906-07 works out at Rs. 8 per head of the population. But the calculation is misleading. The octroi falls on the whole population, but all other taxation is borne by the European visitors alone, who also provide the very large item "Miscellaneous Income." Still taxation is less per head than in other hill stations.

Much the largest item in Miscellaneous Income is proceeds from sale of forest produce. The Municipality controls the forest area around the station, in area 5,000 acres and in quality the finest forest in the district. The forest produce is more various and more valuable than is grown in any of the State forests of the district. Building timber, grass and fuel are exploited, fuel being the chief source of profit. The system at present followed is to issue books of tickets to municipal tax-payers at a charge of Rs. 16 for a book of fifty tickets. Each ticket entitles the purchaser to obtain one maund of firewood from the depots in which the fuel extracted from the municipal forest by contractors has been stacked. Permits for the cutting of grass are issued on fixed fees. The sale of forest produce usually accounts for about two-thirds of the Miscellaneous Income, and either exceeds or falls short of the octroi receipts by only a very small amount. The total income in 1906-07 fell at Rs. 15-5-3 on each head of the population.

The chief items of expenditure in the year 1906-07 were :—

	Rs.
Establishment	7,250
Collection of taxes	3,470
Refunds	2,649
Fire establishment	4,728
Police	2,408
Water supply	11,335
Conservancy	9,203
Hospitals and dispensaries	6,257

Section F.—Public Works.

CHAP. III. F.

Public Works.

The district lies in the Ráwalpindi Division of the Public Works Department, and at present forms a sub-division under a Sub-Engineer stationed at Ráwalpindi. The establishment consists of one Sub-Engineer on Rs. 250 per mensem, one Overseer on Rs. 100 per mensem, three Sub-Overseers on Rs. 35, Rs. 40 and Rs. 50 per mensem, each and four work munshis on Rs 30 per mensem. No District Board works have been made over to the Public Works Department for maintenance. On the other hand the Ráwalpindi Municipal Committee maintains the Civil Station roads, extending to 2·43 miles in length, and in return receives from the Department an annual payment of Rs. 1,200. The arrangement dates from 1888. In addition in the present year (1907) seven miles of the Khushalgarh road were transferred to the District Board, and a proposal is under consideration to hand over to the same authority the *kachha* roads in Murree Tahsíl. There are no *bands* or bridges in the district requiring special mention. Of historical buildings the Nicholson Monument and Fountain at Margalla and the Mankiala Tope are maintained by the Department, the former at an annual cost of Rs. 88, the latter at a cost of Rs. 20.

The Government High School, Ráwalpindi, a large building in the City, was recently made over to Government by a city contractor. It has since been put in charge of the department, by whom it is maintained. The new drainage system for the Ráwalpindi city is in course of construction and will, it is hoped, be completed soon. The construction is undertaken by the Public Works Department, and the expenditure met by the Municipal Committee. The estimated cost is Rs. 1,29,167 and expenditure up to the end of March 1907 amounted to Rs. 69,393.

Section G.—Army.

Rawalpindi Cantonment.

Ráwalpindi Cantonment is the head-quarters of the 2nd (Ráwalpindi) Division, and till recently was the head-quarters of the Northern Command. The divisional head-quarters are at Murree.

On 1st April 1907 the garrison of Ráwalpindi Cantonment was as follows:—

J. Battery, R. H. A.	10th Hussars.
13th Battery, R. F. A.	1st West Yorks.
67th Battery, R. F. A.	1st Royal Irish Rifles.
No. 5 Ammunition, R. F. A., Column.	1st Royal Munster Fusiliers.
" 6 Mountain Battery, R. A.	11th K. E. O. Lancers.
" 7 " " "	25th Punjabis.
" 8 " " "	36th Sikhs.
" 91 Co. Horse Battery, R. G. A.	No. 1 Co. 1st S. and Miners.
	No. 9 Co. 2nd S. and Miners (Balloon Section).

CHAP. III, G.

Army.

Rawalpindi Cantonment.

With the following transport:—

8th, 28th and 29th Mule Corps; 17th, 18th, 19th, 20th Mule Cadres; 51st Camel Corps; 4th, 5th, 6th, 7th, 9th, 10th, 11th, 12th Half Troops; S. T. Bullocks; No. 2 C., A. H. Co.; 2nd, 3rd Cos. Army Bearer Crops.

The cantonment is the largest and most important in the Punjab, and perhaps in India. The accommodation for European troops is far below requirements in the winter months, and two of the British regiments and all the Mountain Batteries of Artillery are located at West Ridge. The summer garrison of European troops is only one Battery Royal Horse Artillery, one Field Battery, one Garrison Battery, one British Cavalry Regiment, and one British Infantry.

Murree.

Murree is only a sanitarium. The mountain batteries go from Ráwalpindi to the Hazára Galis. Clifden, Sunny Bank and Kuldannah form one cantonment. Clifden is in summer filled with a large number of women and children from Ráwalpindi and Pesháwar. A British Infantry Regiment is located at Kuldannah, and another in a temporary camp at Gharial, which also receives detachments from the summer garrison of Ráwalpindi. Barian, on the borders of this district and Hazára, usually has a British Infantry Regiment from Peshávar or Nowshera. Gharial is said to be a corruption of Gharibál and refers to a hill top above the Kashmíri Bazár, where one Ghariba, Gujar, used to graze his cattle many years ago.

In addition to the troops enumerated above, C troop of the Punjab Light Horse, D Company, 1st Punjab Volunteer Rifles, and K Company, North-Western Railway Volunteer Rifles have their head-quarters at Ráwalpindi. The strength of the Light Horse Troop is 57, that of D Company, 1st Punjab Volunteer Rifles, 98, and that of the Company North-Western Railway Volunteer Rifles 122 men, exclusive of officers. In addition G and H Companies of the Punjab Volunteer Rifles, in strength 121 men, exclusive of officers, have their head-quarters at Murree.

G Company, 1st Punjab Volunteer Rifles, is composed of cadets belonging to the Lawrence Asylum. D Company, Punjab Volunteer Rifles, is recruited in Ráwalpindi from the various Civil Departments; K Company, North-Western Railway Volunteer Rifles, solely from Railway employes.

H Company, 1st Punjab Volunteer Rifles, is composed of civilian residents in Murree and Ráwalpindi.

CHAP. III. H.

Police and Jails.

Section H.—Police and Jails.

District Police.

The Ráwalpindi District forms part of the Western Range (or Police Circle) which is in charge of a Deputy Inspector-General with head-quarters at Ráwalpindi. The Police force of the district is controlled by a Superintendent of Police with one or more Assistants. The police stations, of which eleven are of the first class and two of the second class, are in charge of Sub-Inspectors and contain each two Head Constables and twelve constables. There are three outposts. Those at Karor and Phagwari, in the Murree Tahsíl, are of the first class, and contain each one Head Constable and six Constables. The Tret outpost is of the second class, and has one Head Constable and four Constables. In addition to these outposts there are two road posts at Sila and Gora Galli, each with one Head Constable and three Constables. There are no municipal posts.

The strength of the District Police, particulars of which is given in Table No. 47 of the statistical volume, is 4 Inspectors, 19 Sub-Inspectors, 104 Head Constables and 689 Constables. The Ráwalpindi and Jatli thánás, in which crime is heavy, have each two Sub-Inspectors. There is one tracker, who is a Head Constable by grade, and ten Mounted Constables of whom one is Daffadar. Two Head Constables and 25 foot Constables form the armed reserve. Village and town watchmen number 631. The chaukidars are paid partly in grain and partly in cash, but the question of reducing all payments to cash amounts is under consideration.

The cattle pounds throughout the district are in charge of the Police. There is one pound at each thana or outpost. The income derived from them is credited to the District Board, with the exception of the Ráwalpindi City pound, the proceeds from which go to the Municipal Committee.

There are no registered criminal tribes in the district. Punitive posts, however, have been established at Kuri, Athál, Chiráh, Thamair, Golra, Maira Aku, Maira Japir, Shah Allah Ditta, Banda and Chuhar. The district force is recruited from the agricultural population of this and the surrounding districts, but also includes a few men from the nearer parts of Kashmír.

Railway Police.

There is one Railway Police Station in the district with a sanctioned force of 36 constables. Out of this number eight are on escort duty with the pay clerk. These men may be kept either at Lahore or Ráwalpindi, but usually live at Ráwalpindi. Two Constables are posted at Golra and two at Gujar Khan. The Railway Police include eight Head Constables, one Inspector, two European Sergeants, and one Sub-Inspector. The duties of the Railway Police are the same as those of the Ordinary Civil Police, and the procedure observed in the insvestigation of crime is the same. When desired they assist the Railway authorities in keeping order. They are under the orders of the Deputy Inspector-General, Railway Police, Lahore.

CHAP. III. H.

Police and Jails.

District Jail.

The District Jail is in charge of the Civil Surgeon as Jail Superintendent. It is of the first class and prisoners under sentence of imprisonment for four years or less are confined in it. Those sentenced to longer terms are transferred to the Lahore and Montgomery Central Jails. The accommodation is for 914 prisoners of all classes. When the number in Jail is less than this, prisoners are drafted in from Peshávar, Kohát, Hazára, Attock, Jhelum and Shahpur Districts. Jail employments are oil-pressing, rope-twisting, making of mats and money-bags, *darri*-making, lithograph printing, *nawár*, towel and *muslin*-making, and menial duties. The profits amount to between six and seven thousand rupees a year, and the expenditure to about Rs. 65,000 or Rs. 70,000. The cost of maintaining each prisoner in 1906-07 amounted to Rs. 23-5-1.

The Jail establishment under the Superintendent consists of one Jailor, four Assistant Jailors, one Hospital Assistant, one Compounder, one Matron, and 58 Warders. A list of lock-ups will be found in Table 49, supplement to Part B.

There are no reformatories in the district.

Section I.—Education and Literacy.

Standard of Literacy.

The standard of literary in the Ráwalpindi District is above the average of the Province both for men and for women. This is chiefly due to the very great influence of the City and Cantonments. The agricultural population is naturally no more addicted to education than the people of other districts. Urdu is the chief character, but it is closely followed by Gurmukhi. Education is most advanced in the Ráwalpindi and Gujar Khan Tahsíls, but the remaining two tahsíls are not far behind. Advanced education is flourishing among the City population, whether Hindu or Muhammadan. In both primary and advanced education the district is ahead of any other district in the Ráwalpindi Division.

For educational purposes the district lies within the Ráwalpindi Circle and is under the Inspector of Schools stationed at Ráwalpindi.

The chief educational institutions.

The most important schools in it are:—

The Gordon Mission College.—An account of this institution has been given at page 10. It is situated on the outskirts of the City near the Municipal gardens, is a first grade college, and is maintained by the American United Presbyterian Mission. Fifty-eight students receive instruction from a Missionary Principal with nine Professors. The approximate annual expenditure is Rs. 20,000 and the receipts from fees Rs. 3,000.

CHAP. III, I.

Education and Literacy.

The chief educational institutions.

High Schools.—

1. Sresht Niti Government High School.
2. The American Mission High School.
3. The Anglo-Sanskrit High School.
4. The Denys' High School.
5. The Mamooji Islamia High School.

Sresht Niti Government High School.

The first of these was built, named and maintained by Rai Bahadur Buta Singh, a prominent contractor in Ráwalpindi City, who made it over to Government in March 1906 as a donation for the encouragement of higher education. A large increase in expenditure seemed probable owing to the introduction of the new scheme of education, and the institution had become too large for private management. A condition made by the donor was that every day at the time of opening the school a religious prayer suited to all religions should be recited, and that every Saturday a lecture on morals and character should be delivered by one of the masters.

Originally the school was only a Municipal Board Middle School, and was located in a private building near the grain market. The Head Master was untrained. When the school was taken over and raised to the higher standard, a few of the trained teachers were retained, and there is now a trained Head Master, drawing Rs. 200 per mensem, and 26 trained masters. All these are paid from Government funds. The school building is situated at the north-west corner of the City near the garden of Rai Bahadur Sujan Singh. The boarding-house attached to the school was not made over by Rai Bahadur Buta Singh, and separate arrangements had to be made. The boarding-house is now located in a *serai* near the school belonging to the late Sujan Singh. It accommodates 50 boys.

The school is one of the biggest institutions in the Province. There are about 400 boys on the roll. The expenditure for the year ending 31st March 1907 was Rs. 16,717-4-6, and the income from fees Rs. 5,705-2-9. Features of the school are a drawing class, and commercial classes begun in January 1907. Kindergarten is taught in the primary classes.

American Mission High School.

The American Mission High School is the oldest school in the District. It has already been noticed at page 10. The school including its three branches has 895 pupils. It is managed by the Rev. R. Maxwell of the American Mission. The Head Master is a Native Christian on a salary of Rs. 110 per mensem. The number of teachers is 41. There are industrial, commercial and drawing classes, and Kindergarten instruction is given in the primary classes.

CHAP. III, I.

Education and Literacy.

The grants received in 1906-07 were :—

	Rs.	A.	P.
From Municipal Committee	2,608	11	0
From Provincial Funds	6,330	7	10

Attached to the school is a boarding-house which accommodates 43 boys.

The Anglo-Sanskrit High School.

The Anglo-Sanskrit High School, which occupies a good double-storeyed building also used for Sabbath School and occasional religious meetings, is managed by a committee of City notables. The teaching staff is a Head Master and 18 teachers. Pupils number 454. There are no commerical or industrial classes. The total expenditure in 1906-07 was Rs. 7,674-13-4. Rs. 3,803-8-3 were collected in fees and Rs. 3,079-15-9 received as grant-in-aid.

The Deny's High School.

The parent of the Deny's High School was the Cantonment Training Academy of Ráwalpindi, which after languishing for several years collapsed about the middle of 1893. It was revived and re-opened towards the end of that year, and renamed after Major Denys, the Cantonment Magistrate, who was President. It was at first supported entirely by fees and subscriptions, but now receives an annual contribution of Rs. 1,200 from the Cantonment and a grant-in-aid about Rs. 1,500. The pupils number 230. Besides the Head Master there are 15 masters. The school, which is non-sectarian, has, as peculiarities, Punjabi and Bengali classes.

Mamooji Islamia High School.

The Mamooji Islamia High School, which was opened in 1896, is maintained by subscriptions from certain Muhammadans in the City. It is a very flourishing institution. Pupils number 247. The teaching staff is a Head Master and 12 teachers. The expenditure for the year ending 31st March 1907 was Rs. 5,183, fees collected came to Rs. 2,391 and the grant-in-aid amounted to Rs. 1,843.

Middle Schools.

Middle Schools number seven : five Anglo-Vernacular, namely, District Board School at Gujar Khan, Municipal School at Murree, Khalsa School at Subha, Tahsil Gujar Khan, National School at Sayyed, Tahsil Gujar Khan, and the Arya School in the Rawalpindi Cantonment Bazar; and two vernacular, namely, the District Board Schools at Kallar in Kahúta Tahsil and Guliana in Gujar Khan Tahsil.

Ráwalpindi Normal School.

The Normal School, established in 1857, is situated in Ráwalpindi City near the Government High School. Its object is to prepare young men for employment as teachers in vernacular schools The students, who number 73, come from all the districts in the Ráwalpindi Circle, and are stipendiaries. The teachers number 8. Stipends amount to Rs. 7,069-4-4. The annual grant is Rs. 8,000. A Model School is attached to the Normal School, where, under the eye of trained teachers, the students practice themselves in methods of teaching. A plot of land has been hired at an annual cost of Rs. 160 where the students are taught practical agriculture.

CHAP. III, I.

Education and Literacy.

Primary Schools.

There are 93 Primary Schools for boys, and 34 for girls in the District. The following are the schools in the Ráwalpindi District :—

LIST OF SCHOOLS IN RAWALPINDI DISTRICT.

Number.	Tahsíl.	Name of Village.	Kind of School.	REMARKS.
1	Ráwalpindi ...	Tarlai ..	D. B. Primary School for boys.	D. B. building.
2	Do. ...	Lodhra ...	Do. do. ...	Do.
3	Do. ...	Sihala ...	Do. do. ...	Do.
4	Do. ...	Mian Ahmda ...	Do. do. ...	Hired house.
5	Do. ...	Takht Pari ...	Do. do. ...	D. B. building.
6	Do. ...	Do. ...	D. B. Vernacular Primary School for girls.	Hired house.
7	Do. ...	Malakpur ...	D. B. Vernacular Primary School for boys.	D. B. building.
8	Do. ...	Sagri ...	Do. do. ...	Do.
9	Do. ...	Do. ...	D. B. Primary School for girls.	Hired house.
10	Do. ...	Basali ...	D. B. Vernacular Primary School for boys.	D. B. house.
11	Do. ..	Do. ...	D. B. Gurmukhi Branch School for boys.	Hired house.
12	Do. ...	Do. ...	D. B. Vernacular Primary School for girls.	Do.
13	Do. ...	Banda ...	D. B. Vernacular Primary School for boys.	D. B. house.
14	Do. ...	Do. ...	D. B. Primary School for girls.	Hired house.
15	Do. ...	Dhamial ...	D. B. Primary School for boys.	D. B. house.
16	Do. ...	Do. ...	D. B. Primary School for girls.	Hired house.
17	Do. ...	Nakrali ...	D. B. Primary School for boys.	Do.
18	Do. ...	Dhallar ...	D. B. Vernacular Primary School for boys.	D. B. house.
19	Do. ...	Kurri ...	Do. do. ...	Do.
20	Do. ...	Do. ...	D. B. Gurmukhi Branch School for boys.	Hired house.
21	Do. ...	Do. ...	D. B. Vernacular Primary School for girls.	Do.
22	Do. ...	Kirpa ...	D. B. Vernacular Primary School for boys.	D. B. house.
23	Do. ...	Syedpur ...	Do. do. ...	Do.
24	Do. ...	Do. ...	D. B. Vernacular Primary School for girls.	Hired house.
25	Do. ...	Dheri Shahan ...	D. B. Vernacular Primary School for boys.	D. B. house.
26	Do. ...	Shah Allah Ditta ...	Do. do. ...	Do.
27	Do. ...	Golra ...	Do. do. ...	Do.
28	Do. ...	Do. ...	D. B. Verancular Primary School for girls.	Hired house.
29	Do. ...	Bharakau ...	D. B. Vernacular Primary School for boys.	Do.
30	Do. ...	Adiala ...	Do. do. ...	Do.

CHAP. III, I.
Education and Literacy.
Primary Schools.

Number.	Tahsil.	Name of village.	Kind of School.	REMARKS.
31	Rawalpindi ...	Mughal ...	D. B. Vernacular Primary School for boys.	Hired house.
32	Do. ...	Rewat ...	Do. do. ...	Do.
33	Do. ...	Thalian ...	Do. do. ...	Do.
34	Do. ...	Usman Khattar ...	Do. do. ...	Do.
35	Do. ...	Chak Bira Singh ...	Do. do. ...	Do.
36	Do. ...	Sangjani ...	Do. do. ...	Do.
37	Do. ...	Thamair ...	Do. do. ...	Do.
38	Do. ...	Shakarpari ...	Do. do. ...	Do.
39	Do. ...	Mulpur ...	D. B. Vernacular Primary School for girls.	Do.
40	Kahúta ...	Kahúta ...	D. B. Vernacular Primary School for boys.	D. B. house.
41	Do. ...	Do. ...	D. B. Gurmukhi Branch School for boys.	Do.
42	Do. ...	Do. ...	D. B. Gurmukhi Branch School for girls.	Hired house.
43	Do. ...	Thoha Khálsa ...	Do. do. ...	Do.
44	Do. ...	Do. ...	D. B. Gurmukhi Branch School for boys.	D. B. house.
45	Do. ...	Chohâ Khálsa ...	Do. do. ...	Do.
46	Do. ...	Doberan ...	Do. do. ...	Do.
47	Do. ...	Dera Khálsa ...	Do. do. ...	Do.
48	Do. ...	Do. ...	D. B. Gurmukhi Branch School for girls.	Hired house.
49	Do. ...	Nara ...	Do. do. ...	Do.
50	Do. ...	Do. ...	D. B. Gurmukhi Branch School for boys.	D. B. house.
51	Do. ...	Matoi ...	Do. do ...	Do.
52	Do. ...	Bhora Nauroz ...	Do. do. ...	Hired house.
53	Do. ...	Laitrar ...	Do. do. ...	D. B. house.
54	Do. ...	Kanoha ...	Do. do. ...	Hired house.
55	Do. ...	Hanesar ...	Do. do. ...	Do.
56	Do. ...	Sai ...	Do. do. ...	Do.
57	Do. ...	Bhalakar ...	Do. do. ...	Do.
58	Do. ...	Bhown ...	D. B. Vernacular Primary School for boys.	Do.
59	Do. ...	Beor ...	Do. do. ...	Do.
60	Do. ...	Dhanmali ...	D. B. Vernacular Primary School for girls.	Do.
61	Do. ...	Kallar ...	D. B. Vernacular Middle School for boys.	D. B. house.
62	Do. ...	Do. ...	D. B. Gurmukhi Branch School for girls.	Hired house.

CHAP. III, I.

Education and Literacy.

Primary Schools.

Number.	Tahsíl.	Name of village.	Kind of School.	REMARKS.
63	Kahúta ...	Kallar ...	D. B. Gurmukhi Branch School for boys.	Hired house.
64	Do. ...	Kahutti ...	D. B. Vernacular Primary School for boys.	Do.
65	Murree ...	Murree ...	Anglo-Vernacular Middle School for boys.	Do. M. B. School house sanctioned.
66	Do. ...	Sehr Bagla ...	D. B. Vernacular Primary School for boys.	Hired house.
67	Do. ...	Charihan ...	Do. do. ...	Lent.
68	Do. ...	Tret ...	Do. do. ...	Hired house.
69	Do. ...	Ghora Gali ...	Do. do. ...	Do.
70	Do. ...	Karor ...	Do. do. ...	Do.
71	Do. ...	Phagwari ...	Do. do. ...	Do.
72	Do. ...	Kotli ...	Do. do. ...	Do.
73	Do. ...	Ban ...	Do. do. ...	Do.
74	Do. ...	Chattar ...	Do. do. ...	Lent.
75	Do. ...	Pria ...	Do. do. ...	D. B. house.
76	Do. ...	Chajjana ...	Do. do. ...	Hired house.
77	Gujar Khan ...	Gujar Khan ...	Anglo-Vernacular Middle School for boys.	D. B. house.
78	Do. ...	Do. ...	D. B. Gurmukhi Primary School for girls.	Hired house.
79	Do. ...	Do. ...	D. B. Gurmukhi Primary Branch School for boys.	Do.
80	Do ...	Guliana ...	D. B. Vernacular Middle School for boys.	D. B. house.
81	Do ...	Do. ...	D. B. Gurmukhi School for girls.	Hired house.
82	Do. ...	Do. ...	D. B. Vernacular Primary Urdu School for girls.	Do.
83	Do. ...	Darkola ...	D. B. Vernacular Primary School for boys.	Do.
84	Do. ...	Sukko ...	Khalsa Anglo-Vernacular Middle School for boys.	Has a school house.
85	Do. ...	Do. ...	D. B. Vernacular Primary School for boys.	D. B. house.
86	Do. ...	Do. ...	D. B. Vernacular Primary School for girls.	Hired house.
87	Do. ...	Dhariala Segna ...	D. B. Vernacular Primary School for boys.	D. B. house.
88	Do. ...	Bewil ...	Do. do. ...	Do.
89	Do. ..	Dhangdev ...	Do. do. ...	Do.
90	Do. ...	Qazian ...	Do. do. ...	Do.
91	Do. ...	Do. ...	D. B. Vernacular Primary School for girls.	Hired house.
92	Do. ...	Bhagpur ...	D. B. Vernacular Primary School for boys.	D. B. house.
93	Do. ...	Dora Badhal ...	Do. do. ...	Do.
94	Do. ...	Kanat Khalil ..	Do. do. ..	Do.

CHAP. III, I.
Education and Literacy.
Primary Schools.

Number.	Tahsíl.	Name of village.	Kind of School.	REMARKS.
95	Gujar Khan ...	Narali ...	D. B. Vernacular Primary School for boys.	D. B. house.
96	Do. ...	Kauntrila ...	Do. do. ...	Do.
97	Do. ...	Do. ...	D. B. Vernacular Primary School for girls.	Hired house.
98	Do. ...	Dera Bakhshian ...	D. B. Vernacular Primary School for boys.	D. B. house.
99	Do. ...	Daultala ...	Do. do. ...	Do.
100	Do. ...	Do. ...	D. B. Vernacular Primary School for girls.	Hired house.
101	Do. ...	Devi ...	D. B. Vernacular Primary School for boys.	D. B. house.
102	Do. ...	Syed ...	Do. do. ...	Do.
103	Do. ...	Do. ...	D. B. Vernacular Primary School for girls.	Hired house.
104	Do. ...	Do. ...	National Anglo-Vernacular Middle School for boys.	Has a school house of its own.
105	Do. ...	Ghungrila ...	D. B. Vernacular Primary School for boys.	D. B. house.
106	Do. ...	Do. ...	D. B. Vernacular Primary School for girls.	Hired house.
107	Do. ...	Mandra ..	D. B. Vernacular Primary School for boys.	D. B. house.
108	Do. ...	Harnál ...	Do. do. ...	Do.
109	Do. ...	Do. ...	D. B. Vernacular Primary School for girls.	Hired house.
110	Do. ...	Kalyam ...	D. B. Vernacular Primary School for boys.	D. B. house.
111	Do. ...	Missa Kaswál ...	Do. do. ...	Hired house.
112	Do. ...	Bahmáli Khurd ...	Do. do. ...	Do.
113	Do. ...	Kurnali .	Do. do. ...	Do.
114	Do. ...	Derkáli Khurd ...	Do. do. ..	D. B. house.
115	Do. ...	Kurree Dalál ...	Do. do. ...	Hired house.
116	Do. ...	Balyam Pindori ...	Do. do. ...	D. B. house.
117	Do. ...	Bhagam ...	Do. do. ...	Hired house.
118	Do. ...	Turkwál ...	Do. do. ...	Do.
119	Do. ...	Jandmehlo ...	Do. do. ...	Do.
120	Do. ...	Harial ...	D. B. Vernacular Primary School for girls.	Do.

NOTE.—Ráwalpindi City has one Government High School, one Mission High, one D. A.-V. High and one Islámia High for boys and 7 D. B. Primary Schools for girls and one Mission Primary, for girls.

Ráwalpindi Cantonment has Deny's High School and Arya Middle School for boys.

LIST OF AIDED INDIGENOUS SCHOOLS IN RAWALPINDI DISTRICT.

Number.	Tahsíl.	Name of village.	Kind of School.	REMARKS.
1	Gujar Khan ...	Bewil ...	Anglo-Indian Vernacular Primary School for boys.	
2	Do. ...	Changa Bagyal ...	Do. do.	
3	Do. ...	Guliana ...	Anglo-Indian Vernacular Primary School for girls.	
4	Do. ...	Jandmehlo ...	Do. do.	
5	Do. ...	Jairo Ratiál ...	Anglo-Indian Vernacular Primary School for boys.	
6	Do. ...	Jand Nijjar ...	Do. do.	
7	Do. ...	Kurnali ...	Anglo-Indian Vernacular Primary School for girls.	
8	Do. ...	Sukho ...	Do. do.	
9	Do. ...	Chir Bala ...	Anglo-Indian Vernacular Primary School for boys.	
10	Do. ...	Hariál ...	Do. do.	
11	Do. ...	Mitha Dolal ...	Do. do.	
12	Do. ...	Jhanda ...	Do. do.	
13	Do. ...	Núr Dolal ...	Do. do.	
14	Do. ...	Narali ...	Anglo-Indian Vernacular Primary School for girls.	
15	Do. ...	Natta ...	Anglo-Indian Vernacular Primary School for boys.	
16	Do. ...	Ahdi ...	Do. do.	
17	Do. ...	Daultala ...	Do. do.	
18	Do. ...	Mankiala Brahmnan	Do. do.	
19	Do. ...	Bakan ...	Do. do.	
20	Do. ...	Mohra Nuri ...	Do. do.	
21	Do. ...	Kharali ...	Do. do.	
22	Do. ...	Játli ...	Do. do.	
23	Do. ...	Machhía ...	Anglo-Indian Vernacular Primary School for girls.	
24	Do. ...	Devi ...	Do. do.	
25	Do. ...	Darkali ...	Do. do.	
26	Do. ...	Tal Khalsa ...	Anglo-Indian Vernacular Primary School for boys.	
27	Do. ...	Pindhana ...	Do. do.	
28	Do. ...	Sital ...	Do. do.	
29	Kahúta ...	Darkali Mamuri ...	Do. do.	
30	Do. ...	Kahúta ...	Anglo-Indian Vernacular Primary School for girls.	
31	Do. ...	Mowára ..	Anglo-Indian Vernacular Primary School for boys.	

CHAP III, I.
Education and Literacy.
Primary Schools.

Number.	Tahsíl.	Name of village.	Kind of School.	REMARKS.
32	Kahúta ...	Dáberin ...	Anglo-Indian Vernacular Primary School for girls.	
33	Do. ...	Choha Khálsa ...	Do. do.	
34	Do. ...	Dhawáli ...	Anglo-Indian Vernacular Primary School for boys.	
35	Do. ...	Anchhoha ...	Do. do.	
36	Do. ...	Takal ...	Do. do.	
37	Ráwalpindi ...	Chak Shahd ...	Anglo-Indian Vernacular Primary School for girls.	
38	Do. ...	Tarlahi Kalan ...	Do. do.	
39	Do. ...	Chak Bira Singh ...	Do. do.	
40	Do. ...	Mugal ..	Do. do.	
41	Do. ...	Dadochha ...	Anglo-Indian Vernacular Primary School for boys.	
42	Do. ...	Mian Ahmeda ...	Anglo-Indian Vernacular Primary School for girls.	
43	Do. ...	Dhalla ...	Do. do.	
44	Do. ...	Nakrali ...	Do. do.	
45	Do. ...	Adiala ...	Do. do.	
46	Do. ...	Do. ...	Do. do.	
47	Do. ...	Gorikhpur ...	Anglo-Indian Vernacular Primary School for boys.	
48	Do. ...	Saidpur ...	Do. do.	
49	Do. ...	Mohra Kirpal ...	Do. do.	

Female education

Of the 34 grils' schools 14 are District Board schools, and 20 Bhai Khem Singh's schools. The latter are now maintained by Municipal, District Board or Provincial Funds. Twelve of the District Board schools and 19 of Bhai Khem Singh's schools are Gurmukhi schools. Female education is confined chiefly to Hindus and Sikhs. In addition to the above 34 girls' schools there are 24 aided indigenous schools for girls, of which one is a Hindi school, two are Urdu, and the rest Gurmukhi schools. The number of female scholars at the end of March 1907 was 2,442 compared with 11,497 male scholars. Besides reading, writing and arithmetic the girls do "kashida" work.

Script.

In all boys' schools, except the Gurmukhi schools, the script employed is Urdu. In 22 of the indigenous girls' schools the script is Gurmukhi, and in the Arya Girls' School in Ráwalpindi City the script is Hindi.

There are no industrial or agricultural schools in the District, but proposals have been submitted to Government. In about 40 Primary Schools agricultural education is given.

CHAP. III, I.

Education and Literacy.

Indigenous methods of education.

The indigenous methods of education are satisfactory. There are 26 indigenous aided schools for boys and 24 for girls. In all of these reading, witing and arithmetic are taught. Besides these there are a number of *pathshalas* where the Sikh scriptures are taught to girls, and native accounts to boys. There are also a number of *Koran*-teaching schools held in the mosques, where the *Koran* is taught by rote. There are no schools for depressed or aboriginal tribes.

Expenditure.

In 1906-07 Rs. 34,112 were spent on education by the District Board. Rupees. 24,208 were contributed by Government for Primary Schools, Rs. 14,574 were given by the Municipal Committee, Ráwalpindi, to the High Schools as grant-in-aid, and Rs. 1,719 were spent by the Municipal Cummittee, Murree. The fees from District Board schools amounted to Rs. 6,057, and in Murree to Rs. 514.

The proportion of scholars among boys as compared with the number of boys of school-going age is 15·4 per cent. Among the girls the proportion is a little less than 4 per cent.

European Schools.

At Rawalpindi there are the European Schools for girls and boys founded in 1882, and the Mission School in the City. At Murree there are the Sir Henry Lawrence Memorial Asylum, the St. Thomas College for boys, a Roman Catholic Institution, affiliated with the Calcutta University, the Convent School for girls, and St. Deny's (Church of England) School, also for girls, which is managed by three of the sisters from St. Denys', Warminster. There are also small private schools for girls and boys.

The Lawrence Memorial Asylum.

The Lawrence Memorial Asylum at Murree is situated about two and-a-half miles from the Murree station, at an elevation of 6,398 feet above sea-level in north latitude 33° 53″, and east longitude 73° 24½″. It was founded in 1860 by public subscriptions to perpetuate the memory of Sir Henry Lawrence. The object is to provide for the orphans and other children of soldiers, serving or having served in India, a refuge from the debilitating effects of a tropical climate, and to furnish an asylum wherein a plain, practical education, adapted to the condition of its inmates, may be obtained, and where, by Divine blessing, soldiers' children may be trained to become useful and intelligent members of society, and, above all, consistent Christians. The present accommodation is for 96 boys and 84 girls.

An essential principle of the Institution is to make children do as much as they can for themselves, in the belief that only in this way can a number of children be trained up as useful and intelligent and, to a proper extent, independent members of society. The objection raised, that in India it is impossible for Europeans to compete with natives in manual labour, does not in any way militate against the principle on which the Asylum

CHAP. III. I.

Education and Literacy.

The Lawrence Memorial Asylum.

is worked. Children being taught to act for themselves, are trained to habits of independence, and better prepared to explain to natives what they require done. When returning to Europe, which many of them do, they are familiar with the necessity of doing many things for themselves. The girls do all the needlework, cut out and make the new clothes for the boys and themselves, and receive instruction (practical and theoretical) in cooking. Boys do carpentering, household work, &c.

The sources of income are interest on endowment, amounting to Rs. 4,585 grant-in-aid from Government, subscriptions and donations from private sources, profit from bakery, &c.

Girls are provided for on completing their education with places as mistresses, &c.

Boys have joined the Revenue Survey, Public Works Department, Accounts Department offices as clerks, Sub-Medical Department, and the Army, &c.

The standard of education in both departments is based on the scheme drawn up by the Government Educational Department, rising through the different grades, till one is reached whence they are provided for in Government or other Departments suitable for the children, and desired by their parents or guardians.

St. Deny's School, Murree.

The St. Deny's School at Murree was founded in 1882 by the Bishop of Lahore, to meet the want of a school whose fees should be low enough to enable parents with small means to give their daughters a good English education, with accomplishments, as extras, if required. The management of the school was undertaken by the community of St. Deny's, Warminster, England, who are members of the English Church. Two sisters arrived in Murree accordingly in February 1882, and the school was opened on 1st March of the same year in a rented house; but the accommodation being insufficient, a second house was rented. The number of boarders the first year was 25, and of day scholars 8. The children received are both Europeans and Eurasians whose parents are clerks, soldiers, &c.

The education given comprises the ordinary English subjects, with the addition of Music, French, German, and Drawing. In 1883 the school was moved into a much larger house in a very healthy situation, and in March of that year the school opened with 32 boarders; the number of day-scholars has increased to 18, and there is literally no space for more. The staff consists of two or three sisters, an assistant teacher and a music mistress.

Native Presses.

There are the following native Presses in Rawalpindi City and Cantonment.

1. The Egerton Press.
2. The Frontier Exchange Press.
3. The Eagle Press.

CHAP. III. I.

Education and Literacy.

Native Presses.

4. The National Press.
5. The Eureka Press.
6. The Northern India Printing Works.
7. The Gulshan Punjab Press.
8. The Rawalpindi Press.
9. The New Press.
10. The Jain Press.
11. The Rozgar Press.

The Egerton Press issues a weekly English newspaper called the *Punjab Times,* and the *Rozgar* a bi-weekly vernacular paper called the *Rozgar.*

Section J.—Medical.

The Staff.

The medical staff at head-quarters consists of a Civil Surgeon with an Assistant Surgeon in charge of the Civil Hospital. To assist him in the Civil Hospital the Assistant Surgeon has a Hospital Assistant, and a female Hospital Assistant, Miss Lilly Bose, who is in charge of the female section. Connected with the Civil Hospital are two branch dispensaries, one situated in the heart of the City, the other at the north-east corner near Pakka Tank. The former is in charge of a Hospital Assistant, senior grade, and the latter is in charge of a Hospital Assistant, first grade. There are also dispensaries at Gujar Khan, Kahúta and Murree, all in buildings of their own and all in good condition. Except the Murree dispensary all are in charge of Hospital Assistants. The Murree dispensary is in charge of an Assistant Surgeon, under the Civil Surgeon, Ráwalpindi, but in summer an officer of the Indian Medical Service, usually the Civil Surgeon of Jhelum, is appointed Civil Surgeon of Murree, and controls the work of the dispensary.

Rawalpindi Civil Hospital.

The Ráwalpindi Civil Hospital was first opened as a dispensary in 1853 in one of the rooms of the old fort used as a jail in the City. About the time of the mutiny the institution was removed to the present site, and in 1880 it was raised to the standard of a Civil Hospital. It is situated towards the south-western corner of the City on the main road leading from the Cantonment to the City and Railway workshops. The buildings consists of a main block, containing the dispensary, dressing room, the Civil Surgeon's office, consulting, operation and medical store rooms and two wards, one for eye cases and the other for European patients; to the south a second block of separate wards for surgical cases; an ornamental building, called the Jubilee Ward, having accommodation for 24 in patients, a female dispensary and wards to the north, a ward for diarrhœa cases, and establishment quarters. In 1899 a shed for out-door patients was constructed in the Hospital compound. All the buildings are of *pacca* masonry and great improvements have been made from time to time. An eye ward is about to be

CAP. III, J. Medical. Rawalpindi Civil Hospital.

constructed at an estimated cost of Rs. 10,000. About 70 per cent of the patients of all classes (male and female) come from the district. The remainder attracted by the popularity of the Hospital, come chiefly for surgical cases from the adjoining districts, from the native States of Jammu and Kashmír, and even from Afghánistán. In the winter of 1906 a boy of twelve was brought by his father from a village a day's march from Kabul to be operated on for stone in the bladder. The number of cases treated is shewn in Table 52 of Part B. The institution accommodates 64 male and 16 female patients. The staff under the Assistant Surgeon consists of one Hospital Assistant, one female Hospital Assistant, 3 male Compounders, 2 female Compounders and 15 menials. The hospital is maintained entirely from Municipal Funds.

The popularity and usefulness of the dispensaries may be gauged from the following figures :—

Year.	Total number of new patients seen.	Total number of operations performed.
1902	1,20,667	5,215
1903	1,04,886	4,474
1904	1,22,062	5,404
1905	1,13,566	5,313
1906	1,19,087	5,516
Quinquennial average	1,16,054	5,184

Year.	Extraction of cataract.	Litholopaxy and Lithotomy.
1902	117	95
1903	73	70
1904	101	78
1905	160	104
1906	138	120
Total	589	467

The most important operations are extraction of cataract and crushing stone in the bladder. The number of these cases is given in the margin.

The Railway Hospital.

The Railway Hospital is situated to the west of the Railway Station. It is in charge of a Senior Assistant Surgeon with the honorary rank of Captain. It can accommodate 20 in-door patients. For Railway requirements there is also a travelling Hospital Assistant who takes care of the Railway establishment on the line. His head-quarters are at Ráwalpindi.

CHAP. III, J.

Medical.

The Jail and Police Hospitals.

The Jail and Police Hospitals for the use of these departments are in charge of Hospital Assistants and under the control of the Civil Surgeon. "Hakíms" or native practitioners number throughout the district about 70. None of them are of any repute, and many are entirely ignorant. Four Hakíms one in each tahsíl are employed by the District Board. One Hakím and one female nurse (*dáya*) are employed by the Ráwalpindi Municipality. All of them work under the Civil Surgeon.

Rawalpindi Leper Asylum.

The Ráwalpindi Leper Asylum is situated on a well-wooded little plot of land measuring about 10 acres and situated about ¼ mile towards the north-east of the City. For the past two or three years the Asylum has been under the control of the "Mission to Lepers in India and the East," a missionary of the American Mission acting as Superintendent in charge. The Ráwalpindi Municipality and the District Board jointly contribute Rs. 3,500 annually towards the upkeep of the asylum. The expenditure last year was Rs. 4,905, the deficit being met by the Leper Mission. The Maháraja of Poonch contributed Rs. 800 for the support of lepers from his State. The number of inmates during 1906-07 averaged about 90. A Hospital Assistant with a staff of assistant and menials has direct charge of the Asylum. The Leper Mission assisted by a grant from the Provincial Government is now erecting a modern building for the accommodation and treatment of the inmates of the Asylum.

Vaccination.

Vaccination is compulsory in the areas included within the Ráwalpindi and Murree Municipalities. The vaccination staff consists of one Superintendent of Vaccination, one Divisional Inspector, 9 Vaccinators, English clerks, and peons. The total cost of this establisment (inclusive of travelling allowances and contingencies) during 1906-07 was Rs. 3,148, which was met from the following funds:—

	Rs.
From Provincial Funds	648
" Local Fund	1,765
" Municipal Funds	288
" Cantonment Funds	447
TOTAL	3,148

Three per cent. of the population was protected by vaccination during 1906-07. Statistics show no marked progress in vaccination during recent years, but in fact the system is becoming more popular with the people. Vaccinators are not feared as they used to be and the value of vaccination is better appreciated.

CHAP. III. J.

Medical.

Village sanitation.

In the hills where water drains away readily and there are no village *abádis* sanitation is naturally good. In the plain portions of the district village sanitation is unsatisfactory. Rainwater is allowed to stand and stagnate in pits, pools and depressions round the villages, and manure and refuse of every kind are allowed to accumulate and are even stored in the courtyards till it is time to manure the fields.

Quinine is distributed gratuitously to the village population through the agency of *zaildars, inámdárs* or *lambardárs*. The annual budget provision is Rs. 100, paid from Local Funds. In seasons of special unhealthiness this amount is exceeded sometimes by as much as Rs. 200.

CHAPTER IV.—PLACES OF INTEREST.

CHAP. IV.

Places of interest.

Places of purely antiquarian interest have been described in Chapter I, Section B.

RAWALPINDI.

For European and native alike Rawalpindi itself is the place of most interest in the district.

In the ancient history of the town General Cunningham is the only guide. He has identified the existing indications of an ancient city on the site now occupied by the British cantonments as the ruins of the city of Gajipur or Gajnipur, once the seat of the Bhatti tribe in the centuries preceding the Christian era.[1] The ancient city would appear to have been of considerable size, as ancient Greek and other coins and broken bricks are still found over an extent of two square miles. A small village still exists about three miles to the north of Ráwalpindi, named Ghazni, and as it is on the banks of the same stream as the cantonment, it most probably preserved the old name of the city. Within historical times the old name of the place was Fatehpur Báori, but the town which bore this name was completely destroyed during one of the Mughal invasions of the fourteenth century. In 995 A.D. it came into the possession of the Gakhars by gift from Mahmúd Ghaznavi, but its exposed position on the customary line of march of successive armies invading India was against it, and it long lay deserted, till Jhanda Khan, a Gakhar chief, restored it, giving it the name of Pindi or Ráwalpindi from the village of Ráwal which was at one time a flourishing place a few miles to the north of the town on the present road to Murree. The town, however, rose to no importance until after 1765, when it was occupied by Sirdár Milka Singh. This chief invited traders from Bhera, Miáni, Pind Dádan Khan and Chakwál, trading towns of the Jhelum and Shahpur districts, to settle in Ráwalpindi, and under his auspices the town rapidly grew in importance.

In the beginning of the present century the city became for a time the refuge of Sháh Shuján, the exiled Amír of Kábul, and his brother, Sháh Zamán, who built a house once used as a *Kotwáli.* The present native Infantry lines mark the site of a battle fought by the Gakhars under their famous chief, Sultán Mukarrab Khan, and it was at Ráwalpindi that on 14th March 1849 the Sikh army under Chattar Singh and Sher Singh finally laid down their arms after the battle of Gujrat. On that occasion a Sikh soldier was overheard to say, "To-day Mahárája Ránjít Singh has died."

On the introduction of British rule it became a cantonment of considerable size, and shortly afterwards the head-quarters of a division. The cantonments were first occupied by troops in 1849, at

(1) "Archæological Report for 1862-63," pages 20 and 151.

CHAP. IV. — Places of interest.

the close of the Multan Campaign, Her Majesty's 53rd Regiment being the first regiment quartered there. The final decision to occupy the station permanently was arrived at by the Marquis of Dalhousie when on tour in the Punjab in 1851. The place at once sprang into importance and grew up like a mushroom. The hill forests within reach of cantonments were ransacked for timber for building and for fuel, and the *guzaras* and many of the forest to the present day shew in their depleted condition the effects of the excessive fellings of those times. In 1879 the Punjab Northern State Railway, now the North-Western Railway, was extended to reach the city, which has as a result increased immensely in size and commercial importance. The railway was not opened to traffic till 1st January 1886. The city lies in north latitude 33° 37′ and east longitude 73° 6′. The total population at last census (1901) was 87,688, the city itself containing 47,077 souls, and the cantonments 40,611.

It lies on the north bank of a muddy stream called the Leh, which has here deep precipitous mud banks, and which is crossed by an iron bridge on the Murree road, and by four other bridges at different points in its course. The Leh separates the city from the cantonment and civil station which are both on the right bank, the city being on the left. The Civil Lines and the Deputy Commissoner's Office and Treasury are all at the extreme north-east corner of cantonments, and about a mile above the city on the Leh banks are situated the Workshops of the North-Western Railway which divert a good deal of its water by means of pumping apparatus.

The city itself lies low, and is only visible at any distance from the west. Much of the town is well built, and is very modern containing no buildings of much architectural beauty, or of ancient date. Water lies at a considerable depth below the surface, and there are not many private gardens; close to the town there is a large and well laid out municipal garden maintained by the Municipal Committee.

The lands round the town are very fertile and cultivation extends from the city northwards up to the foot of the Murree hills, and westwards to the Márgalla range. There are no city walls. The old fort has disappeared and there are no relics of antiquity to catch the eye. The town is essentially modern, and owes its growth and prosperity to the existence of the large cantonment beside it, and to the importance into which it rose during the last Kábul war. There are many good substantial brick buildings to be seen in every direction, and the town is a very clean one for an Indian city, and has a pleasant air of comfortable prosperity. As a rule the streets are wide and regular; only in the north-western, the most ancient, corner are the *bázárs* narrow and crooked. The town is probably the cleanest in Northern India.

The cantonment lies about a mile south of the city, on the slope by which the rich plain of Ráwalpindi merges into the characteristic ravine-gashed plain. The vast dreary undulating plain, cut up and broken in every direction by deep ravines, stretching away to the horizon west, south and east, and unbroken save by the eastern scarp of the Khairi-Murat hill, the "Chir Par," is on west and south-west hidden from the cantonment by rising ground. The outlook is thus over the fairest and richest part of the district, to the Margalla range and towards the Galis and the Murree hills. In winter a view of the Pír Panjál covered with snow can often be obtained.

In the cantonment, which is higher than the city, water is met with at a slightly lower depth, many trees have been planted, the roads are excellent, and the whole place is thoroughly well kept, trim and clean; the Civil Lines and the parts of the cantonment adjoining them are the best wooded portions. Here many specimens of the *pinus longifolia* are to be seen, which give an almost European aspect to this large North Indian station.

At the eastern extremity of the cantonment on an eminence is the fort, which encloses an arsenal within its walls. Other forts have been built at some distance from cantonment. Civil Lines, a little island in cantonments at the north-east corner contain the Commissioner's and Deputy Commissioner's Courts and the Treasury and Jail. Close by is the recently completed Circuit House and not far off is the Murree Brewery. Behind Civil Lines lies the park, one of the glories of Ráwalpindi. The forest growth is very strictly preserved, and affords a striking illustration of what efficient protection can do even in the plains. The numerous roads and rides are excellent. Many portions are very beautiful and the park is naturally much frequented by all the Europeans of the station. There are several ponds on which duck and teal are of ten seen. Hare, partridges, foxes and jackal are fairly numerous, as shooting is not permitted except on special occasions. The western extremity of the station is known as West Ridge. Two British Infantry Regiments and a Battery are usually cantoned here. The ridge finds room too for the Railway lines, which are built near the workshop and contain a little church, an excellent Railway institute and a theatre. The site is high and airy, and commands a fine view. The houses are occupied by employés of the Railway.

Of the principal buildings in cantonments the Garrison Church, built in 1854 and restored in 1879, is a large but most unpicturesque structure. The east window is in memory of a former Bishop of Calcutta (Milman), who died at Rawalpindi in 1876. A handsome altar tomb of marble has been placed over his grave in the cemetery. The Church of Scotland proposes to build a large Gothic Church on an excellent site on the Mall. The Railway station and Telegraph offices, are both fine massive

CHAP. IV.
Places of interest.

buildings. The station club is in the centre of the station, on the Mall. There are two good hotels under European management, several excellent European shops, and two banks. The remaining public buildings and offices are the Courts of the Commissioner and Deputy Commissioner; the Police office; the Treasury; the extensive Jail; the Brigade, Commissariat and Transport Offices; and the office of the Paymaster, Punjab Circle. The gas-works are situated immediately outside the boundary of cantonments.

At the north-west end of the Mall on the Peshawar Road near the XIth Lancers' Mess is General Lockhart's monument, a high pillar of grey granite.

The Sadar Bazar (in cantonments) contains numerous good Parsi and other shops. At the entrance to the bazar an archway has been erected in remembrance of Brigadier-Gerneral Massy, and is known as the Massy Gate. There is also a spacious market built by Sardar Sujan Singh at an expense of two lakhs of rupees and thrown open to the public in 1883.

In the neighbourhood stand the Commissariat Steam Flour Mills, which supply most of the cantonments in the Punjab.

In the city the principal buildings and places of interest are—

(1) The Municipal Gardens.

(2) Rai Bahadar Sujan Singh's garden containing a small museum known as the Shaddi Ghar or marriage house. It was opened on the occasion of the marriage of his eldest son, Sardar Hardit Singh, and contains many valuable articles.

(3) Sardar Hardit Singh's Library. It was opened in August 1902, and is maintained by subscriptions and by an endowment of Rs. 250 per mensem out of the sum of Rs. 1,000 per mensem bequeathed by Sardar Sujan Singh for Dharm Khátá. It is open to the public for at least seven hours in the morning and evening every day, and is managed by a Committee under the presidency of Bhai Sham Singh, a cousin of Sardar Sujan Singh. The income from subscriptions amounts to about Rs. 30 per mensem. About 80 newspapers and magazines are taken in, and there is also a variety of books of every description for public use.

(4) Sresht Niti High School, described at page 10.

(5) Beckett and Agnew grain markets

(6) Civil Hospital.

(7) Mission School.

(8) Mission (Gordon) College.

(9) The Tank of Mai Viro. CHAP. IV. — Places of interest.

(10) The right and left city redoubts situate to the north-east and north-west of the city respectively.

The water-works and drainage system have already been noticed. The municipal arrangements were described in Chapter III, Section E.

MURREE.

The sanitarium of Murree lies in north latitude 33° 54′ 30″ and east longitude 73° 26′ 30″, at an elevation of 7,517 feet above sea-level, and contains a standing population of 1,768 inhabitants, which is, however, enormously increased during the season by the influx of visitors and their attendant servants, and shop-keepers. It is the most accessible hill station in the Punjab, being distant from Ráwalpindi only 38 miles. The tonga journey can be done in five hours. This year (1907) the Punjab Motor Transport Company have placed a service of motor cars on the road, and access to the station is now rapid and comfortable. Magnificent views are obtained in the spring and autumn of the snow-crowned mountains of Kashmir ; and gorgeous sunset and cloud effects are seen daily during the rains. Parts of the station, especially the Kashmír end, are also well-wooded and pretty.

The climate is good except in June, July, August when it is decidedly relaxing, and the station is apt to be overcrowded.

The extremities of the summit are known as Pindi Point and Kashmír Point. Of these the latter is the higher ; but the greatest height (7,517 feet) is attained by an eminence between them. They are connected by a road, about three miles long, which traverses the entire station ; and the houses of the residents nestle against the hill among the trees on both sides of the summit. Below the main road, nearly at its middle point, stood the club of Northern India, burned down in the summer of 1902. Here the cart-road from Ráwalpindi terminates, and from this point starts the road for Cliffden barracks, one mile distant, where are stationed the married women and families of troops quartered at Murree and its neighbourhood. Close to the ruins of the club, on the same side of the road, but on an eminence above it, is the Anglican Church, and on a corresponding eminence on the other side are the barracks and offices of the depôt. The Presbyterian Church is close by below the Mall. Between this point and the Post Office, situated about a quarter of a mile further on towards Kashmír Point, are the shops for the sale of European goods ; and beneath, on the steep hill side, is the native *bazár*. The latter, owing to the constant supervision of the Assistant Commissioner and his staff, is generally clean and neat and well drained. From the Post Office the old road to Kashmír branches off, passing within the tation, the Telegraph Office, Court of the Commissioner and the

CHAP. IV.
Places of interest.

old Secretariat and skirting the Ghariál camp, four miles from Murree. Opposite the Post Office is the Assistant Commissioner's Court and Treasury, whence diverges the road to the Gallies and Abbottabad, which passes through camp Kuldannah, two miles below Murree. The water supply was formerly obtained from springs over which covered tanks had been built, in which the water was allowed to accumulate. The supply was consequently limited, and in the hottest part of the season there was sometimes a dearth. There was also an ever present danger of contamination of the sources from the careless way in which even European residents frequently neglect to control the conservancy of their households. Water is now brought in from a pure source in the hills some 10 miles from Murree, is stored in reservoirs and supplied through pipes. The population in the season is chiefly drawn from Ráwalpindi, but considerable detachments of visitors come from Lahore, Sialkot, Peshávar and Mooltan, and there are few stations in the plains entirely unrepresented. Further details will be found in the guide books written by Dr. Ince and Mr. Peacock, Assistant Commissioner, respectively.

The Murree ridge upon which the station is situated, forms a lateral spur of the Himalayas, running down at right-angles to the plains with a general direction from north-east to south-west, and flanked on either side by parallel lines of hill. On approaching Murree from the plains, the first point at which the range assumes the proportions of a mountain is at Tret, 25½ miles from Ráwalpindi. From this point it rises rapidly, and at Pindi Point, the south-west extremity of the station, reaches a height of 7,266 feet. From this point the ridge stretches due north-east for about 3½ miles still rising, until, at Kashmír Point, the north-eastern extremity, it reaches the height of 7,507 feet. The height is not, however, uniform, but rises and falls in a series of points, the strata which form the topmost ridge, a few feet only in width, being traceable throughout. Beyond Kashmír point the Murree range sinks abruptly and branches off into the hills of Topa to the east, and Kuldannah to the west. These hills shut in the northern ends of the valleys into which the Murree ridge sinks on either side. Both are richly wooded, and are, or used to be, favorite resorts for picnic parties from the station. Kuldannah, however, has been occupied as a site for barracks. The Murree ridge itself on its north-west side has a comparatively gentle slope, and is clothed with a dense forest of pines and chestnuts. The valley below is deep and irregular, and the range on the other side bare and steep, higher than the Murree ridge. On the other side the ridge sinks more abruptly into the valley shut in above by Topa, and is comparatively bare of trees. The valley below is wide and open, richly cultivated and studded with villages, while the hill side beyond it slopes less rapidly and is thickly clothed with forest. The

scenery upon the wooded side of the Murree ridge is not surpassed in any of the Punjab hill stations, and when the Kashmír hills are clothed with snow, they form a magnificent background to the view. During the summer months, however, snow lies upon them only in patches.

CHAP. IV.

Places of interest.

The houses of the European visitors are scattered along both sides of the Murree ridge from Pindi Point to Kashmír Point, but are most frequent upon the wooded or north-west slopes of the hill. They are connected by broad and easy roads, of which the principal is the Mall extending nearly from end to end of the station. In rainy weather, however, these roads, like the cart-road from Ráwalpindi, become muddy and slippery to a degree that renders locomotion extremely difficult. The clayey soil retains the moisture, and the roads, once thoroughly cut up, require several days of dry weather before they resume their ordinary appearance. The climate of Murree is said to be well adapted to the British constitution, but for some months probably owing to the clay formation it is decidedly relaxing. The coldest months are December, January and February. The hottest month is usually July. Rain falls generally in April and May, but the heaviest rain is in July and August. Hail storms are common in April and November, and heavy thunderstorms during the rains. Earthquakes occur almost every year, sometimes more than once, but they have never been known to result in any damage.

The site of the station was selected in 1850, and in 1851 troops were first quartered there. Permanent barracks were erected in 1853. During the Mutiny, the Dhúnds, a tribe inhabiting the neighbouring hills, incited by the Hindustánís of the station, made an attack upon Murree, but timely notice of their intentions having been given, their ill-armed levies were easily dispersed. In 1858, and again in 1867, there were epidemics of cholera, and the mortality was very great. Another outbreak occurred in 1888. The immediately succeeding years saw occasional visitations of the disease, generally importations from the plains, but more recently the station has been free from disease. Up till 1876 Murree was the summer head-quarters of the Local Government, which has now forsaken it for Simla. An Assistant Commissioner is stationed in independent charge of Murree during the season.

The Anglican Church is large, spacious, and finely situated. There are also a Roman Catholic and a Presbyterian Church. Two miles below the station is the Lawrence Asylum for military orphans, which has already been described. Two bridle roads lead to it, one starting from Pindi point, and the other from the cart-road terminus. The best public building is the Post Office; the Courts of the Commissioner and Assistant Commissioner and the Telegraph Office are all most unpretentious edifices. In the

CHAP. IV. Places of interest.

bázár are the Tahsíldár's Court and the Police Station. Besides these there are the Assembly Rooms, a branch of the Alliance Bank of Simla, and the dispensary. There are several excellent European and Pársi shops and five hotels, the shop-keepers and hotel managers of Ráwalpindi migrating to Murree during the summer months. Rowbury's hotel is the ancient Government House. The Murree Brewery, which has already been alluded to, is at Goragalli, six miles below Murree by the cart-road, where the houses of the Manager and his Assistants make up a considerable colony.

Municipal arrangements have already been described in Chapter III, Section E. The winter and summer population is taken to be 5,045, but in the summer the population can fall but little short of 10,000.

GUJAR KHAN.

Gujar Khan has now little to distinguish it but the presence of the tahsil head-quarters. Once it was a market well-known in the Northern Punjab, and exported wheat and other grains to Karachi and England. The produce of Gujar Khan itself, Kallar, Chakwal and Fatehjang was brought in large quantities, and as much as 10,000 maunds of grain per diem was sometimes exported. Ralli Brothers, and all the great firms had their agencies here, and the Gujar Khan wheat had a high reputation in the trade. Gujar Khan wheat is still as good as or better than any wheat in the Punjab, but the centre of trade has moved away. The Mari-Attock Railway has tapped some of the country which sent its wheat to Gujar Khan, and the Chenab Colony has shifted the centre of the Punjab wheat trade nearer the sea. All the agencies have gone. The Karachi trade is small. Successive bad harvests have severed trade connections, which will never be renewed The old salt trade too with Kashmír has gone, ruined by preferential tariff in that State. The place has fallen from its old station. It is now only the largest of the villages in the Tahsil, trading in the produce of Gujar Khan alone, and distributing the miscellaneous requirements of the Gujar Khan *zamindar*. But the place is still active. It has a firm hold on its own commercial world, and is the trade centre for the whole tahsíl.

KAHUTA.

Kahúta is very different. It is merely a large village of 2,961 inhabitants with the tahsil head-quarters. The trade of the tahsil is diffused, and Kahúta is not a centre. The more fertile parts to the south deal with Gujar Khan through Nara and Kallar. Kahuta has no traders apart from money-lenders, and no dealings for exports and imports with any large producing mart. But the place stands at the junction of five roads. To the south-west an excellent road leads to Sihala station on the North-Western Railway, twelve miles away. A second road runs north

CHAP. IV.
Places of interest.

up into the hills by Letrar and Kotli and so to Murree. A third strikes north-east by Panjar and crosses into Poonch by the Lachman Ferry. A fourth, running due east, leads into the same State and Jammu by the Owen Ferry and a fifth runs south to Kallar. The little *bazar* does a small trade in *ghi*, wool and hides, with the hills in British or Kashmír territory. These goods are either sold or bartered for salt, sugar, tobacco and cotton stuffs.

KALLAR.

Kallar does a similar trade, but is chiefly interesting as the head-quarters of Bedi Gurbakhsh Singh, the spiritual leader of all the Sikhs of the Pothwar.

PHARWALA.

Pharwala is interesting because it contains the ruins of the old fort, the head-quarters of the Gakkhar power. The village itself has been deserted by all but four families of Gakkhars and a few tenants-at-will. The fort lies on the face of a bare slope of rock, and below it rushes the Soan torrent which here emerges from the hills. The vicissitudes of Pharwala have been described in the Chapter on History.

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